

CORPORATION OF MADRAS



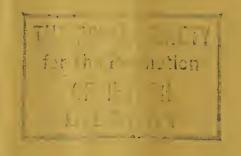
ANNUAL REPORT

OF

THE HEALTH OFFICER

FOR

1957

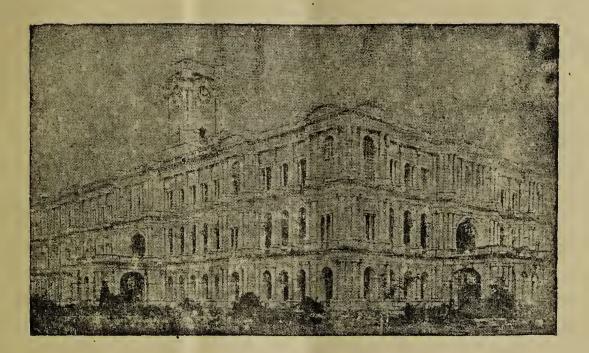


PRESENTED BY

DR. B. V. SUNDARABABU, M.B., B.S., D.P.H. (CAL.)
HEALTH OFFICER CORPORATION OF MADRAS



CORPORATION OF MADRAS



RIPON BUILDINGS

ANNUAL REPORT

OF

THE HEALTH OFFICER

FOR

1957

EASIGNWAC FOUNTACETUL

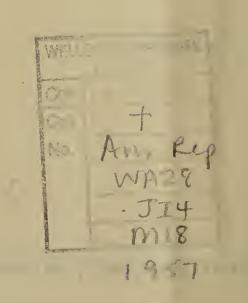
TRUMBE HAUNDER

T.

ENDING TENIARIO THE

7 -

THUL



Worshipful Mayor, Deputy Mayor, Aldermen and the Honourable Members of the Council!

It is with great pleasure I place before you, the Annual Report of the Health Officer for the year 1957.

Dr. B. V. Sundarababu continued to be the Health Officer and was assisted by Dr. P. V. Balakrishna Marar, Dr. A. Ramachandra Rao, Dr. I. Gopalakrishnan, Dr. N. Dakshinamoorthy and the Lady Superintendent of the Child Welfare Scheme, Dr. (Miss) C. N. Rukmani. It is gratifying to note that inspite of the three severe epidemics of Small-pox, Influenza and Cholera, which they had to face this year, the death rate for the City rose only by 1.01 per mille. The way they tackled the Influenza epidemic requires special mention. At a very short notice, they had to face the problem. They mustered up and rose to the occasion. The Health Department of the City not only earned the gratitude of the citizens of the City of Madras, but also the appreciation of all the other States. They had an uphill task in combating the Cholera epidemic which broke out immediately after the Influenza epidemic and they acquitted themselves creditably in their work. The Infantile Mortality Rate, which is recognised by the International Health Authorities as the index of the general health of a city, and also the Maternal Mortality Rate are the lowest ever recorded in the City. is indirectly the index of the great efforts taken by the health staff to attain a high standard of City's health. Yet a lot more has to be done and I hope that the Health Officer and the assistants and the staff of the Health Department will strive their best to see that the City of Madras is made one of the healthiest Cities by all standards.

I hearby record my appreciation of the good work done by Dr. B. V. Sundarababu, the Health Officer, his assistants and the health staff during this year and place this Annual Report of the Health Officer before the Honourable Council.

Madras, 19-1-59

D. BALASUNDARAM,

Commissioner.

and the strong of the strong o

a product of the same of the s The state of the s

The state of the s - Indicate the last of the contract of - 1000 STT-1011 0 3 - 1 3 - 1 The second secon the second of th to the third the second of the $p = p_{1} \cdot p_{2} \cdot p_{3} \cdot p_{4} \cdot p_{4} \cdot p_{5} \cdot$ and the region of the state of

one that it completely the second of the very the product of the first of the second of th The state of the s

4 1919 BEST 1 18 1 3

1. T 128 14 -- 1 -- 1

9

The State of the S

CORPORATION OF MADRAS

HEALTH DEPARTMENT

ANNUAL REPORT FOR 1957

CONTENTS

				¢		PAGES
1.	INTRO	DUCTION		10.00	,	i to iv
2.	REPOR	T		Spale (Commission Commission Comm		
	Section	on A—Statistics.	, .	F(%) = - ()		
	1.	Stastical Summ	ary		•••	1
	2.	Meteorology	33 - 1 - 4		*	2
	3.	Population	` .	- Critisi on I	•••	2
	4.	Births				2
	5.	Deaths			• • •	4
	6.	Epidemic & En	demic Disea	asės	•••	8
	7.	Vaccination			•••	9
	8.	Anti-Mosquito	Operations	There are	•••	12
	9.	National Mala	_	Programme	•••	21
	a			III and the same		
	Secti	on B—Sanitation	•	AND PROPERTY.		
	75-1.	Food Sanitation	n		•••	31
	2.	Environmental	Sanitation	1° 1°	•••	. 36
	3.	Industrial Sani	tation		•••	39
	4.	School Sanitati	on (Medical	Inspection)		40
	5.	Port Sanitation	r		•••	43
	Section	on C—Medical R	elief.	- 100 mar 5 W		
	1.	Hospitals	_	7.	***	45
	2.	Dispensaries			•••	54
	3.	Special Clinics			•••	55 ,
	Secti	on DLaborator	y Services.			•
	1.	Public Health	Laboratory		•••	85
	· 2.	Public Analyst			• • •	87
	3.				•••	93.
	Secti	on E—Recreation	n Centres.			
	1.	Ashok Vihar			•••	99 [,]
	2.	Stadia, Play G	rounds and l	Parks	•••	111

PAGES
& Children. ACACO
113
e 115
Infirm.
117
s.
121 · 122
ealth Department 122
phs I & II
* · · · · · · · · · · · · · · · · · · ·
Malaria Control Programme 23
rol Programme Graphs I & II 24
rol Progamme
Graph III 27
88 Common
•• 94 •• 96
· · · · · · · · · · · · · · · · · · ·
1 Post of the contract of the
ol Programme 1 1 1 1 1 28—32
··· 35—33
3030
25 10
63—86
To the second se
e
eskiel plani od ajte da
A SELL BY THE THE SELECTION OF THE SELECTION
wromand of corresponding to
la partir partir
mana a mana di santa
radit forest.
2. Siacht Play Counds and fu

INTRODUCTION

and the second of the second o

In presenting the Annual Report on the Health of the City of Madras for the year 1957, I wish to place before the House some of its principal contents, to comment briefly on matters of interest which have special bearing on the Health and Welfare of the population, and to indicate the various aspects of this Department in particular, where there has been development of progress during the year under review.

POPULATION

The population, as estimated for the mid-year 1957 by the Director General of Health Services, was 17,58,607, recording an increase of 54,087 inhabitants or 3.17 per cent over the corresponding figure of 17,04,520 for the preceding year 1956.

The population for the year calculated by the method of Natural Increase, i.e., excess of births over deaths, is 15,67,802, recording a nett increase of 32,414.

BIRTHS

A total of 69,197 births were recorded during this year under review with a rate of 39.35 per mille of estimated mid-year population as against 64,476 and 39.39 per mille respectively in the preceding year.

DEATHS

The number of deaths registered during the year 1957 were 39,783 with a rate of 20.91 per mille as against 38,927 and 19.90 per mille respectively in 1956.

The rates of births and deaths, referred to for discussion in the body of the report, are based both on the estimated mid-year population and also on the population, calculated on the Natural Increase Method.

INFANTILE MORTALITY

The rate of 139.71 deaths for every 1,000 live births during the year among the infants under one year is the lowest ever recorded in the history of this City and this is a good index of the improved general sanitation of the City.

ENDEMIC AND EPIDEMIC DISEASES

The year had been unique in the respect that the City had to face three diseases in epidemic form.

Throughout the year the Small-pox was prevalent, recording a total attack of 1,720 of which 365 proved fatal, with a fatality rate of 21.22 per cent of the total notified cases of Small-pox.

For the first time in several years, the City had an epidemic of Influenza, imported from the Far East. Though this "Epidemic Influenza"

was declared a 'notified disease' the notification of the occurances of "Epidemic Influenza" by the private medical practitioners was quite discouraging. However, the seven-week epidemic of 'Asian 'Flu,' which was estimated to have affected more than five lakhs of the population, was brought under effective control by the streneous field work of the divisional staff. We had to face the problem with such a short notice as even less than 24 hours as the epidemic has actually occurred simultaneously with the arrival of an infected steamer. The Corporation Dispensaries were not able to cope up with the work and we had run several mobile dispensaries and treated the patients in their own houses and we are proud to say that we earned appreciation from all over the Country.

In this connection, I must admit that we are very grateful to the State Government and especially the Director of Medical Services for the great assistance they have rendered in lending the Medical and Nursing personnel to man several of the mobile dispensaries.

The Epidemic Influenza was closely followed by an epidemic of Cholera, recording a toll of 381 deaths with a fatality rate of 18.67 per cent of the total attacks of 2,041. As in 1953, we put into action, a mobile saline transfusion van and administered the life-saving Intra-Venus Saline Transfusion at the houses in collapsed cases even before the removal of cases thus saving several patients, who would have otherwise died even during the transit.

Deaths due to Malaria and other insect-borne diseases were on an appreciable decline, mainly on account of the D.D.T. spraying and other control measures adopted by the Malaria Staff and the staff of National Malaria Control Programme.

VACCINATIONS AND INOCULATIONS

Special staff were engaged for mass vaccination against Small-pox and inoculation against Cholera during the epidemics, apart from the systematic street by street preventive inoculations and vaccinations done by the divisional staff.

7,215 certificates of Vaccinations against Small-pox and Inoculations against Cholera were issued for the purpose of International travel free of cost.

MEDICAL RELIEF

1, 1 1

There was an appreciable development in the expansion of Medical Relief by the opening of three more allopathic dispensaries at Sanjeevirayanpet, Basin Bridge and Kottur-Adyar. Credit must be given to the Dispensaries, Mobile Medical Units, Maternity and Child Welfare Centres and the divisional public health staff for the way in which they had continued their work in the most difficult circumstances during the seven-week epidemic of imported Asian 'Flu.

More attention could not be paid to the Medical Inspection in the Corporation Schools since the medical inspection staff had to be diverted to the epidemic work on and off throughout the year.

The other Special Clinics for Leprosy and Skin Diseases, Veneral Diseases and Tuberculosis maintained their standard of service to the population satisfactorily.

LABORATORY SERVICES .

The three Laboratories, viz. Pathologist, Public Analyst and Water Analyst, continued to do good service to the public. Especially the Public Health Laboratory is earning more and more appreciation of the public for its accuracy in their investigations and it is gratifying to note that more and more public are availing of this amenity provided by the Corporation of Madras.

CARE OF THE MOTHER AND THE CHILDREN

There has been an appreciable progress in the Maternity and Child Welfare Services to the population during this year and the catering of skilled assistance to women during ante-natal and post-natal and also during the confinements. This is the main cause of the reduced Maternal and Infantile Mortality Rates of 2.08 and 139.71 respectively which are the lowest on record in the History of the City.

As regards the routine Serological Examination of Blood of pregnant women for syphilis, the provision for this service in the City is quite inadequate as only 15 Centres have these facilities. The treatment of all the positive cases, have played an important role in the reduction of congenital abnormalities in the newborns. If great emphasis is placed on the education of the expectant mothers and the above services are made available in all the Maternity and Child Welfare Centres of the Corporation, there will be every scope of reducing the Maternal and Infantile deaths to a commendable minimum.

FAMILY PLANNING

The six full-time and four part-time Family Planning Clinics, run by the Corporation so far, were discontinued on and from 30—10—1957, when the Government-sponsored "Family Planning Intensive Scheme for the Madras City" was adopted. Under this Pilot Scheme, four Fathers' Information Centres and six Mothers' Information Centres have commenced functioning initially to cater the population in the divisions 37 to 45 and 50A. The services of this Family Planning Scheme is scheduled to be extended stage by stage to the entire population of the City.

CARE OF THE AGED AND THE INFIRM

The Special Home for the disabled and the infirm and the Monegar Choultry, where the Corporation maintains 100 beds, were able to accommodate a few of the deserving people. But this does not touch even the fringe of the problem. In all advanced countries care of the aged is one of the essential duties of the Health Department and Geriatrics, the science of the diseases of the old, has become a specialised subject. The aging population have their own problems which duly affect the health of the City and here in Madras we are yet to start such Geriatric Clinics.

CARE OF THE ANIMALS

The services rendered by the Cattle Depots and the Veterinary Dispensaries continued to be satisfactory. The outstanding event, worth mentioning in the Zoo, is the successful breeding of tigers without any congenital deformities and an addition of Himalayan Pheasants and Game Foul.

CONCLUSION

I have the pleasure to place on record my profound gratitude to the day-to-day wise guidance and the continued encouragements accorded to us by the Commissioner, which is a sure indication of his intense interest in the work of this Department and consequently in the Health of the City.

I wish also to express to my assistants and also to all the staff of this Department how deeply I appreciate the spirit and the efficient services they rendered loyally throughout the year.

Donald the second of the secon

The same and the religion of the second of t

the state of the s

Madras }

B. V. SUNDARABABU,

Health Officer.

Alternative to the second of t

I. STATISTICAL SUMMARY

Area			(or) 49.84 Sq. miles.
Population as per Census of 1951	- 11		14,16,056
Population estimated for the mid-year	1957	7	17,58,607
Population calculated on the Natura (excess of births over deaths)	l Increase N	Method	15,67,802
Average density per acre			53.7
Births excluding Still Births			69,197
Birth Rate as per estimated mid-year	population		39.35
Birth Rate as per population calculat Increase Method (excess of births ov		Natural 	44.3
Deaths excluding Still Births	r 1)	1	36,783
Death Rate as per estimated mid-year	population		20.91
Death Rate as per population calcu- Increase Method (excess of births ov	4	Nat ur al 	22.5
Natural increase			32,414
Still Births		45 38	2,650
Still Births per 1,000 births (live and s	till)		36.88
Infant Deaths			9,676
Infant Mortality Rate		•••	139.71
Maternal Deaths		•••	150
Maternal Mortality Rate h—1	111111111111	7 0	2.08

II. METEOROLOGY

The atmospheric conditions recorded during the year 1957 are furnished in Statistical Supplement No. 1.

Rainfall:—The total rainfall in inches recorded at the Nungambak-kam Observatory during the year was 41.98 as against 45.43 inches in the previous year.

Rain fell on 58 days during the year as against 69 days in 1956. The highest monthly rainfall was 4.38 inches in November 1957 as against 8.37 inches in September 1956.

The rainfall recorded in the City during each quarter of the year compared with that of the previous 6 years is furnished below:—

Year	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total fall in inches
1951	0.16	9- 5.42	11.76	13.31	30.65
1952	0.79	16.74	6.49	18.19	42.21
1953	1.42	0.82	10.01	25.38	37.63
1954	1.06	0.29	18.71	24.28	44.35
1955	4.81	10.17	15.37	21.29	51.64
1956	2.13	6.40	19.20	17.70	45.43
1957	0.20	1.79	14.66	25.33	41.98

III. POPULATION

The Population of the City, according to the census of 1951, was 14,16,056. The mid-year population for 1957 was estimated to be 17,58,607. The area of the City was 31,900.9920 acres or 49.84 sq. miles. The average density of population per acre was 53.7. The mid-year population of the City, calculated on natural increase method (excess of births over deaths), works out to 15,67,802. In calculating the births and deaths rates, both the estimated mid-year population as well as population calculated on natural increase method, have been adopted.

IV. BIRTHS

Registration of Births and Deaths is compulsory in the City and is done in 31 Registration Centres, spread all over the City, by trained full-time Birth and Death Registration Clerks under the immediate supervision of five Medical Officers in-charge of ten divisions each. Reports on vital events—both births and deaths—received from the Hospitals, Nursing Homes, etc. are still found to be defective inspite of our repeated requests to furnish correct and full particulars as required in the reports. Nursing Homes and Clinics are increasing in the City day by day. The existance of some of the Nursing Homes and Clinics in the City are not even known to this department, and Vital Events occurring in such Nursing Homes are not promptly and correctly reported, with the result the parties have to suffer when they apply for extracts of such Births and Deaths. It is, therefore, quite necessary that all Nursing Homes and Clinics should be registered by the Corporation so as to have a supervisory control over them.

69,197 births were registered during the year as against 67,476 registered in the previous year. The birth rate calculated on the estimated mid-year population was 39.35 per mille as compared with the rate of 39.59 in 1956 the 'quinquennial average' being 39.38.

The birth rate for the year 1957 based on population calculated by natural increase method was 44.3 per mille as against 44.00 in 1957. As in the previous year, there were more male children born than the females—the proportion being 104.5: 100.

The month-war incidence of births during the year was as follows:-

Quarter	Months	No. of Births	Quarterly Total
I.	January February March	4,366 \ 4,195 \ 5,667 \	14,228
2	April May June	5,870 \ 6,334 \ 6,017 \	18,221
3	July August September	6,067 5,359 5,701	17,127
4	October November December	6,182 \ 6,047 \ 7,392 \	19,621
	Т	otal 69,197	69,197

The births among the Principal communities were as follows:—

		No. of Bi	T-4-1		
Communities		Males	Females	Total	
Anglo-Indians	· · · ·	144	107	221	
Aliens	01	20	20	40	
Indian-Christians	•••	1,694	1,619	3,313	
- Hindus	•••	30,628	29,418	60,046	
Muslims		2,881	2,666	5,547	
Others	• • •	18	12	. 30	
All Communities		35,355	33,842	69,197	

The birth rate and the number of births recorded in each division in the City is furnished in Statistics Supplement No. 2.

Still-births:—2,650 still births were registered during the year with a rate of 36.88 per 1,000 live and still births against 2,579 and a rate of 36.81 for the previous year showing an increase of 0.07 in the Still Birth Rate.

Statement of Live Births by age of mother and in order of confinement at live births during 1957 is furnished in Statistics Supplement No. 15.

V. DEATHS

The tolal number of deaths registered during the year 1957 was 36,783 as against 33,927 in 1956, with a death rate of 20.91 and 19.90 respectively—calculated on estimated mid-year population. Birth Rates, calculated on population figures arrived at by natural increase method, was 22.5 against 23.0 of 1956. Due to slight increase in the total number of deaths, the excess of births over deaths, is less in this year than in the previous year. A statement of Births and Deaths, recorded in the City since 1948, is furnished below with special reference to the natural increase:—

Year		Births		ral increase (+) decrease (—)
1948	•••	50,222	31,002	+ 19.220
1949	•••	52,362	32,639	+ 19,723
1950	•••	52,619	38,726	+ 13,893
1951	•••	58,961	42,039	+ 16,922
1952	•••	62,921	43,207	+ 19,714
1953	•••	54,277	43,753	- 10,524
1954	•••	59,256	33,181	+ 26,075
1955	*•••	66'449	34,264	+ 32,185
1956	• •••	67,476	33,927	+ 33,549
1957		69,197	36,783	÷ 32,414

The maximum of deaths registered during the last quarter of the year and the minimum in the first, as can be seen from the month-war incidence, tabulated hereunder:—

Quarter	Months	No. of Deaths	Quaterly Total
1	January February March	2,659 2,750 2,663	8,072
2	April May June	2,555 2,647 3,899	9,101
3	July August September	3,023 3,155 3,556	9,734
4	October November December	2,974 \ 3,053 \ 3,849 \	9,876
200 T 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Tot	tal: 36,783	36,783

The number of deaths registered in each division with death rate is furnished in the Statistics Supplement No. 5.

Deaths amongst the prinicipal communities: The occurrence of deaths community-war is as follows:—

Principal Communities	Males	Females	Total
Aliens	3	2	5
Anglo-Indians	92	92	184
Indian Christians	881	898	1,779
Hindus	15,815	15,176	30,991
Muslims	1,981	1,823	3,804
Others	15	5	20
All communities	18,787	17,996	36,783

The number of births and deaths, registered with the respective rates among the prinicipal communities in the City during the year, as compared with the previous years, is furnished in the Statistics Supplement No. 11.

Age & Sex-war distribution of deaths: There were more deaths among males than in the females—the figures being 18,787 and 17,996 respectively. The number of deaths were minimum in the age group of 10-14 years and maximum under 1 year. Nearly 26% of the total deaths occurred under 1 year of age and 50% of the total deaths were amongst the children below 4 years. The statement, furnished below, gives the age and sex-war distribution of total deaths.

Age—Group	Males	Females	Total
Under 1 year	5,123	4,548	9,671
1 to 4 years	4,263	4,754	9,017
5 to 10 years	720	825	1,545
. 10 to 14 years	240	296	536
15 to 19 years	301~~	361	662
20 to 29 years	1,012	2,164	2,176
30 to 39 years	1,042	964	2,006
40 to 49 years	1,322	865	2,187
50 to 59 years	1,521	1,008	2,529
60 years and above	3,243	3,211	6,454
		10.600	
Total	18,787	17,996	36,783

Principal Causes of Death: The City, which had been relatively free from Cholera and Small-pox during the previous three years, had both these diseases in epidemic form in the year of report. These two diseases together were responsible for the loss of about 1,000 lives. The other

water-borne diseases like Typhoid, Dysentry, and Diarrhoeas were responsible for about 5,500 deaths. Non-tubercular respiratory diseases have taken a toll of 8,600 deaths as against 7,691 in the previous year 1956.

The following statement shows the figures under the prinicipal causes of death:—

J. 10 J.	A (*1.2.2.		·_	
Causes of I	Death	Males	Females	Total
Plague	sús .			<u>t</u>
Cholera	*	173	. 241	414
Small Pox		220	208 °	428
Measles	Ç		2	2
Malaria	<i>t.</i> .	7	11	18
Enteric Fev	ver ·	118	69	187
Other Feve	rs	1,228	1,292	2,520
Dysentery		1,243	1,397	2,640
Diarrhoeas		1,230	1,315	2,545
Tuberculos T. B. of I	is (including ungs)	418	197	615
Other Resp	iratory Disea	ses 4,460	4,144	8,604
Deaths due	to child birt	h —	150	150
All other ca	auses	9,690	8,970	18,660
To	tal	18,787	17,996	36,783

Infant Mortality:—The Infant Mortality Rate of this year was the lowest on the records so far in the history of Madras City. The number of deaths amongst infants, under 1 year, was 9,671 as against 9,800 in 1956—the rates being 139.76 and 145.24 respectively. The infant mortality rate recorded in the City since 1946 are:

Vear

1 Cai	IIII	int ivioritatity rate
1946—1950	• • •	176.26*
1951—1955		157.98*
1956	•••	145.24
1957		139.76
-	,	*quinquennial average.

Infant Mortality rate

Of the total number of infants deaths, 5,123 occured among males as against 4,548 in females. Of the total 9,671, nearly 35% died before they attained the age of 1 month and 22.3% within 1 week after birth and the following, shows the number of deaths under different age-groups under 1 year:

Age Groups	No. of Infant deaths
Under 7 days	2,163
Above 7 days and under 1 month	1,224
Above 1 month and under 6 months	3,172
Above 6 months and under 1 year	3,112
Total	9,671

102117

As per principal causes, responsible for these infant deaths, 30% of these deaths were due to permaturity and consequent debility and another 30% due to respiratory diseases. It has been universally recognised that the Infant Mortality Rate is a fairly good index of general sanitation of the City. The gradual decrease of the Infant Mortality Rate in the last 2 decades is a clear indication of the improvements in the standard of sanitation of the City. However, the high neo-natal mortality rate and the 2 principal causes of death, namely the prematurity and the respiratory disorders, show that with greater ante-natal care and provision of skilled assistance, during the time of confinement and after, will definitely decrease this rate still further.

The following statement shows the principal causes of infants death:

	-	Causes of Death	No. of D eath	Age-Disease specific death rate
*	1.	Cholera	4	0.04
. ,	2.	Small Pox	100	1.03
	3.	Measles	•••	•••
	4.	Diphtheria	13	0.03
	5.	Enteric Fever	2	0.02
	6.	Malaria	1	0.01
•	7.	Other Fevers	595	6.15
	8.	Dysentry	418	4.32
	9.	Diarrhoea	884	9.14
	10.	Infantile debility, mal- nutrition, including premature births.	2,979	30.80
	11.	Disease of the respiratory organs.	2,755	28.50
	12.	Convulsions	377	3.90
	13.	Other diseases	1,543	15.96
		Total	9,671	100.00

Maternal Mortality:—As a result of child-bearing, there were 150 deaths amongst the mothers with a mortality rate of 2.08 as compared to 153 maternal deaths and the rate of 2.18 for the previous year.

There has been a steady decline in the recorded Maternal Mortality Rate in the City and this year's is the lowest on record so far. One of the most of the important contributory causes for this decline is the expansion of Maternity and Child Welfare Services and catering of skilled assistance to women during the ante-natal and post-natal periods

and as well as during the confinement. The maternal mortality rates for the last one decade is furnished hereunder:—

Year	Maternal Deaths	Maternal Mortality rate
1948	142	2.83
· - 194 9	130	2.48
1950	113	2.15
1951	151	2.50
1952	155	2.78
1953	155	2:78
1954	150	2.47
1955	156	2.34
1956	153	2.18
1957	150	2.08

CONTROL OF INFECTIOUS DISEASES

This year has been unique in the respect that Madras had three diseases in epidemic form and this department was able to control them very quickly and successfully. For the first time after several years, Madras was seized with an epidemic of INFLUENZA imported from the far east.

Small-pox

Small-pox, which was occurring in the form of 'stray cases' in the beginning of the year, slowly developed into a mild epidemic from the beginning of March and came down to pre-epidemic level by the end of May; but unfortunately showed a recrudescence in the month of September and continued to be on the increase even at the end of the year. Though Madras City was never free from Small-pox, the disease is seen to take epidemic form periodically. The last big epidemic was in the years 1950 and 1951 with about 7,000 cases reported and after that the disease was maintained at an endemic level. The way it started in 1957 and its continuing into 1958 shows these two years may be epidemic years.

The number of attacks and deaths from Small-pox reported in the City during 1957 are as follows:—

			\				
Months	Months		C	ITY	Moru	JSSIL	
Months			Attacks	Deaths	Attacks	Deaths	aths
January		•••	30	4	26		
February		• • •	32	2	15	2	
March		•••	195	29	31	5	
April		• • •	251	47	79	12	
May -		•••	122	35	30	5	
June		•••	64	13	34	7	
July		• • •	78	18	55	9	
August	7	•••	99	18	50	4	
September		•••	138	32	28	7	,
October		• • •	178	46	18	1	
November November		•••	188	51	24	. 5	
December		•••	345	70	27	3	. }
	Total	•••	1,720	365	417	63 Falley	1 -

As soon as there were indications that Small-pox was taking an epidemic turn, the public were informed through the press and the Propaganda Van the urgent need for protecting themselves against Small pox, the efficacy of Vaccination, the various dangers of an attack of Small pox and the need for isolation of all cases of Small-pox—whether mild or severe. The response to this public appeal, though not spontaneous, was quite good. It was only with the co-operation of the public, this department was able to control the further spread of the disease, which otherwise would have taken a very bad turn. In all 1,720 cases were reported from within the City, of which 365 proved fatal, with a case fatality rate of 21.2%.

To cope up with the additional work, several additional Sanitary Inspectors and Vaccinators have been appointed. Intensive house-to-house inspections—especially in slums—have been undertaken. Several hidden cases have been detected and isolated. Vaccination has been done on mass-scale at most vulnerable areas. Similarly to meet the increased admission, temporary sheds have been erected at Infectious Diseases Hospital for additional accommodation and staff under various categories have been appointed under the emergency scheme.

Isolation of cases and intensive vaccination are the most important and sure preventive measures in tackling epidemic of Small-pox.

Vaccinations are done at 31 Vaccination Centres, spread all over the City, by 72 qualified Sanitary Inspectors and 8 trained Lady Vaccinators. Vaccination was also done by Birth & Death Registrars at the various Offices of Registration of Births and Deaths. The employees of licensable trades and immediate contacts of Small-pox cases, notified, were vaccinated by Sanitary Inspectors. During the year, the vaccination staff contacted the parents of all the babies born in the City for the purpose of compulsory vaccination and the bye-laws framed under Section 349 (26) of the M. C. M. Act. By intensive house-to-house inspection, 18,564 babies, born in the mofussil and brought to the City without being vaccinated, were detected. Of the total, 54,139 Primary Vaccinations were performed during the year as against 52,929 in the previous year. Systematic re-vaccinations, street-by-street, has been done by the vaccination staff under the system of block-work. Persons, who were not able to produce evidence of re-vaccination during the last 4 years, come under the category of 'unprotected' persons under the provisions of M.C.M. Act. Re-vaccination is compulsory for such persons. In all 3,85,729 re-vaccinations have been done during the year under report.

The results of vaccination were verified by the Assistant Health Officers and Sub-Asst. Health Officers. The success rates amongst Primary Vaccinations and Re-Vaccinations were 99.9% and 6.3% respectively. Nearly 80% of the total primary vaccinations were done on infants under one year of age.

For failure to get their children vaccinated, 154 persons were prosecuted and convicted, and 49 persons were convicted for failure to get

themselves re-vaccinated. The following statement shows the incidence of Small-pox and the vaccinations performed month-war:—

Months	Attacks	Deaths	Primary & Secondary Vaccinations	Re-vacci- nations
January	30	4	4,870	23,297
February	32	. 2	5,845	28,484
March	195	29	6,210	70,866
April	251	47	5,231	83,227
May	122	35	3,726	45,096
June	64	13	3,175	13,640
July	78	18	4,313	18,371
August	99	18	3,497	18,337
September	138	32	3,350	15,123
October	178	46	4,186	92,959
November	188	51	4,548	22,486
December	355	70	5,193	23,843
Total	1,720	365	54,144	3,15,729

Vaccination against Small-pox and Inoculation against Cholera were performed for the purpose of International travel and the certificates were issued duly authenticated by the Health Officers to 7,215 persons during the year.

As in previous years, students of the Sanitary Inspector's Course, Medical Colleges in the City as well as Vellore and Village Vaidyas were given training in Theory and Technique of Vaccination by the Range Health Officers.

Particulars of the vaccinations performed in each division during the year are furnished in Statistics Supplement No. 19.

EPIDEMIC INFLUENZA 1957

The Threatened Invasion

The first information of the likelihood of import of infection of 'Asian 'flu' into Madras City from Singapore, where it was raging, was received by the Health Officer on 13th May 1957 from the Director of Medical Services, who has convened a conference of the Officers of the Public Health Department of the Government of India, Government of Madras and the Corporation of Madras to discuss the various measures to be taken to deal with the situation in case the City is threatened with such a contingency. The Asst. Director-General of the Health Services, Government of India, Delhi, addressed the conference and explained the measures to be taken in case infection is imported into this country. While actually the conference was going on, a telegram was received that S. S. "Rajula", a steamship plying between Singapore and Madras carrying 1,797 passengers, was heavily infected with Influenza and that she would be arriving at Madras on the night of 15th May 1957 without touching Nagapattanam. It also stated that there were 135 badly affected cases amongst the passengers and 20 among the crew, including the ship's Medical Officer and Nurse besides several other mild cases. The Captain of the ship was immediately informed by radio message, under the instructions from

the Central Government, that his ship would be quarantined and that he should display "Q.L." Flag and that he shall anchor "in roads" beyond one mile away from the shore and shall not anchor within half-a-mile from any other anchored ship.

Further discussions were held at a higher level as already the danger was imminent and it was agreed that the State Government shall send Medical Teams on board the ship to treat the sick and the Corporation to send Health staff for the purpose of disinfection, etc. It was also agreed that the ship shall be quarantined for a minimum period of 120 hours, and the procedure to be followed at the end of the quarantine period, would be discussed later.

Anticipatory Preparations

In view of the imminent danger of threatened out-break of the epidemic in the City, the Government was requested by the Health Officer and the Director of Public Health to declare "Epidemic Influenza" as 'Infectious Disease' and also as 'Notified Infectious Disease' under the Madras Public Health Act to ensure proper notification of the cases as well as to take effective preventive measures. Consequently, the Government have notified that "Epidemic Influenza" an 'Infectious Disease' for the purpose of Part I of Chapter VII and 'Notified Infectious Disease' for the purpose of Part II of Chapter VII of the Madras Public Health Act for the whole State of Madras on 15th May 1957 even before the arrival of the ill-fated ship, S. S. "Rajula".

The public have been informed, through the press, talks on the microphone and distribution of leaflets, that there was no cause for alarm as "Asian 'flu" was of mildest strain, advising them what they have to do when there are cases of Influenza in their house-hold, to prevent further spread. They have been asked to notify all cases to the nearest health official, to contact any Medical Officer of a Corporation Dispensary or any doctor immediately they found signs of Influenza and to isolate all cases at home unless they are seriously ill, in which case they can be isolated at the Infectious Diseases Hospital and to disinfect their houses frequently by burning Incence like 'Sambrani' (country Balsam) which is a very good aerial disinfectant.

All the Corporation Medial Officers have been instructed about the signs and symptoms of "Asain 'flu" and were advised to notify all cases that come to their knowledge and to isolate the seriously ill at Infectious Diseases Hospital, Tondiarpet, and treat the mild cases there itself giving suitable medicine and instructions. They have been asked to keep a large stock of Sulpha Drugs, A. P. C. Tablets and Penicillin to deal with the situation.

Extra staff have been posted in some dispensaries and all dispensaries were ordered to be kept open on all days including Sundays and Holidays both morning and evening and also the working hours in the evenings were increased by one more hour. To cater the public in slum areas and people who are far away from regular dispensaries, 5 mobile dispensaries, equipped with enough stock of medicine, etc. were pressed into action, each unit manned by a Medical Officer, assisted by a Nurse and an attendant.

To receive at least 500 cases at a time, the accomodation at the Infectious Diseases Hospital, Tondiarpet, was incressed by putting up temporary sheds and converting some of the permanent wards into emergency Influenza wards. Additional Medical, Nursing and other staff were immediately appointed. The State Government has lent the services of several Medical and Nursing personnel, from their Hospitals to work at the Infectious Diseases Hospital, Tondiarpet, as well as in the Medical Units. Pre-Registration Internees were posted in various Corporation Dispensaries to assist the regular staff.

As stray cases of Influenza have been reported from amongst some workers in Hotels in Esplanade (near Harbour) on the 18th May, and in view of the decision taken to disembark all the passengers of S.S. "Rajula" on the 21st May, the Health Officer requested the Collector of Madras to declare the City threatened with an out-break of "Epidemic Influenza" under Section 76(1)(a) of the Madras Public Health Act, and to confer, under Section 76(1)(b) of the Madras Public Health Act, on the Health Officer, Corporation of Madras, all the powers specified under Section 76(2) of the Madras Public Health Act in order to combat the threatened out-break. Consequently the Collector declared, on the 20th May, that the City was threatened with an out-break of "Epidemic Influenza" and conferred extra-ordinary powers on the Health Officer, Corporation of Madras.

The Attack and the Counter-Attack

The stray cases, reported from the Hotels in Esplanade, on the 19th May, continued and gradually spread to other Hotels and Institutions, on 20th, 21st and 22nd, and started to assume the epidemic proportions affecting all divisions. Attendance at all the Corporation Dispensaries has increased to an alarming proportion and the Mobile Dispensaries had full work. Admission at the Infectious Diseases Hospital increased and finally it was decided not to admit all cases but restricted it to only deserving seriously ill cases with the result, an "Out-Patients" Clinic had to be opened at the Infectious Diseases Hospital, Tondiarpet, where mild cases were treated as 'Out-Patients.'

In order to prevent further spread, the Government have been requested to close all the Cinema Theatres for a period of one month or at least ban the morning and matinee shows so as to see that no show is conducted under closed doors. The Cinema Managements have been advised to allow free circulation of air between the shows, disinfect the auditoria with Propylene Glycol which is a viricide, or atleast burn incence like 'sambrani'.

The Government have also been requested to order postponement or re-opening of schools after summer vacation by one month. Accordingly the morning and the matinee shows were banned, and even the evening shows were not permitted to start before 7 P.M., for a period of one month upto 28th June 1957 and all the schools were ordered not to re-open till 1st July 1957.

On report of cases, the Divisional Sanitary Inspectors went to the infected houses, advised the contacts to keep away from the sick, and disinfect the houses by burning 'sambrani'. Seriously ill cases were isolated at the Infectious Diseases Hospital, Tondiarpet. A few institutions, when infected, were disinfected with Propylene Glycol in the form of aerosol, through a fogging machine called the "Swing Fog" with very encouraging results.

Under the instructions from the Virus Laboratory at Coonoor, application of Mandle's Pigment to the throat, was advised as preventive measure to the public.

All the healthy passengers from the infected ship, S. S. "Rajula" as well as the S. S. "State of Madras" which arrived on 28th May 1957, who were residents of Madras, were kept under surveillance of the Corporation Health Staff for at least 5 days from the date of disembarkation.

Clinical aspect of the Epidemic:—Usually the onset had been sudden with severe head-ache, body pains and fever. The temperature ranged between 101°F to 104°F, with flushing of the face and dry irritating cough to start with and after a day or two cough and coryza. Usually

by fourth or fifth day the temperature came down, though the cough and coryza continued for a week or so. In several cases, there had been a secondary rise of temperature after two days. In such cases, the convalescence was protracted and disability and incapacity for work were very much more. Epistaxis was found in about 5% of cases. Pneumonia was the main complication that was responsible for the majority of deaths. Only in one instance the symptoms of Meningitis appeared.

Treatment mainly consisted of Aspirin for head-ache and pains, Sulpha Drugs in doses of 1 gram every 4 hours for 2 or 3 days. In serious cases, Penicillin 5 lacs twice a day or Achromycin 125 mgs. 4 to 6 times a day or other broad spectrum antibiotics were used to prevent and treat complications. When compared to morbidity, the fatality rate was markedly low, though the Post Influenzal Asthenia was very high.

Statement No. 1 shows the week-war age-sex distribution of attacks of Influenza admitted into the Infectious Diseases Hospital, Tondiarpet.

1/1														n-t-Weater-			-	١,	
Week Ending	Unc 1 y			l-5 rrs.	6-1 yrs	_	11— yea		21— yea		31- yea		41— year			ver yrs.	Tota	al	Grand Total
1011	M	$ \mathbf{F} $	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
25 May	1	1	4	6	8	5	240	31	339	26	79	16	28	9	16	6	715	100	815
1 June	13	2	18	18	37	20	266 (2)	59	470	75	128 (1)	22 (1)		19	38	7	1039 (3)	222 (1)	•
8 June	1	-	1	6	7	12	64	42	107 (1)	14	30 (1)	8	17	5	8	4 (2)		91 (2)	326 (4)
15 June	. 1	2	1	4	6 (1)	9	26 (1)	69	33	12 (1)		4	7 (1)	4	12	3	104 (3)	107	9
22 June	2	-	3	4 (1)	_	2	5	2	10	3	. 4	· ·	2	1		. 1	`26	13 (1)	39 (1)
29 June	_	-	_	17, 0	·		1 1	2	6	1	-	-	1		1	1	9 11 5	4	13
6 July							1		1		1	1 0	. 3		1	• P	\$2.1.1	* *,	
Total	18	5	27	38 (1)	58 (1)	48	603 (3)	205	966 (1)	131 (1)	260 (2)	50 (1)	135 (1)	38	76	22		537	

^{*} Figures, within brackets, 'deaths due to Influenza'.

Of 2,670 cases admitted nearly 80 % were men. The proportion of incidence among women to men of different age-groups is 1:11 under 10 years, 1:46 in the age-group 11-30 years, 1:43 in the age-group 30-50 years, and 1:35 in the age-group over 50 years. There is a proportionate incidence amongst the females under 10 years. With reference to age, the maximum cases occurred in the age-group 21-30 years, accounting for 41% of the total cases. It is the lowest in extremes of ages with about 0.8% under 1 year, and about 3.6%, above 50 years. In all, 13 deaths occurred due to Influenza amongst the Hospital cases with a case fatality rate of 0.484%. Of the deaths 38.5% were women. The case-fatality rate for women was very much greater, compared to men, the rates being 0.9% and 0.33% respectively. The fatality is the highest in old people over 50 years with a rate of 2.03%, then comes in order the age-group under 10 years with 1.03%, and cases were least fatal in the age-group 11-30 years with a rate of 0.261%. One case, a 28 year-old-male, developed meningial symptoms and in all the others death was due to complications of lungs, like Broncho-Pneumonia, Lobar-Pneumonia, etc. The average duration of the disease before death was 3.2 days.

1150 95

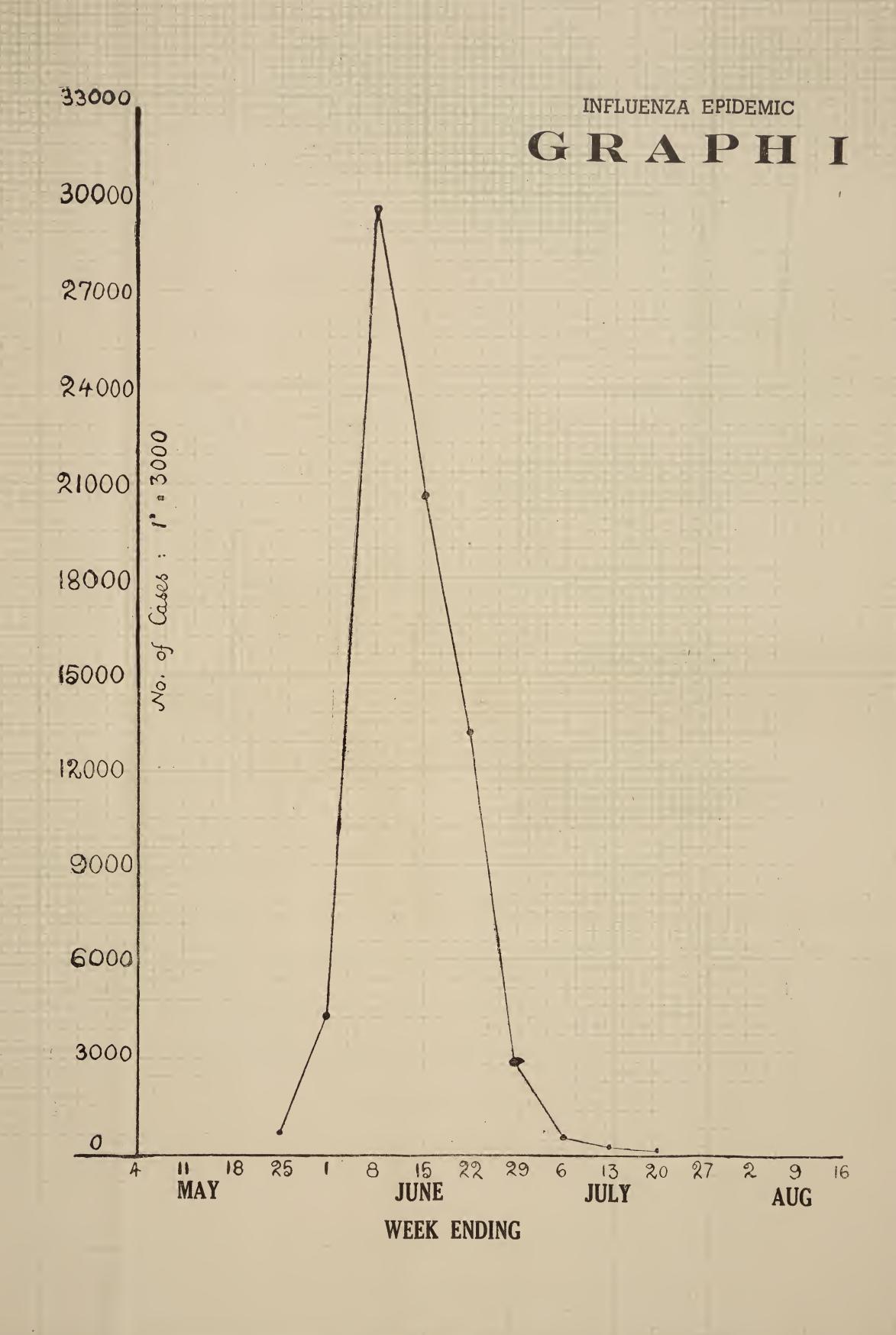
Assessment of the Damage

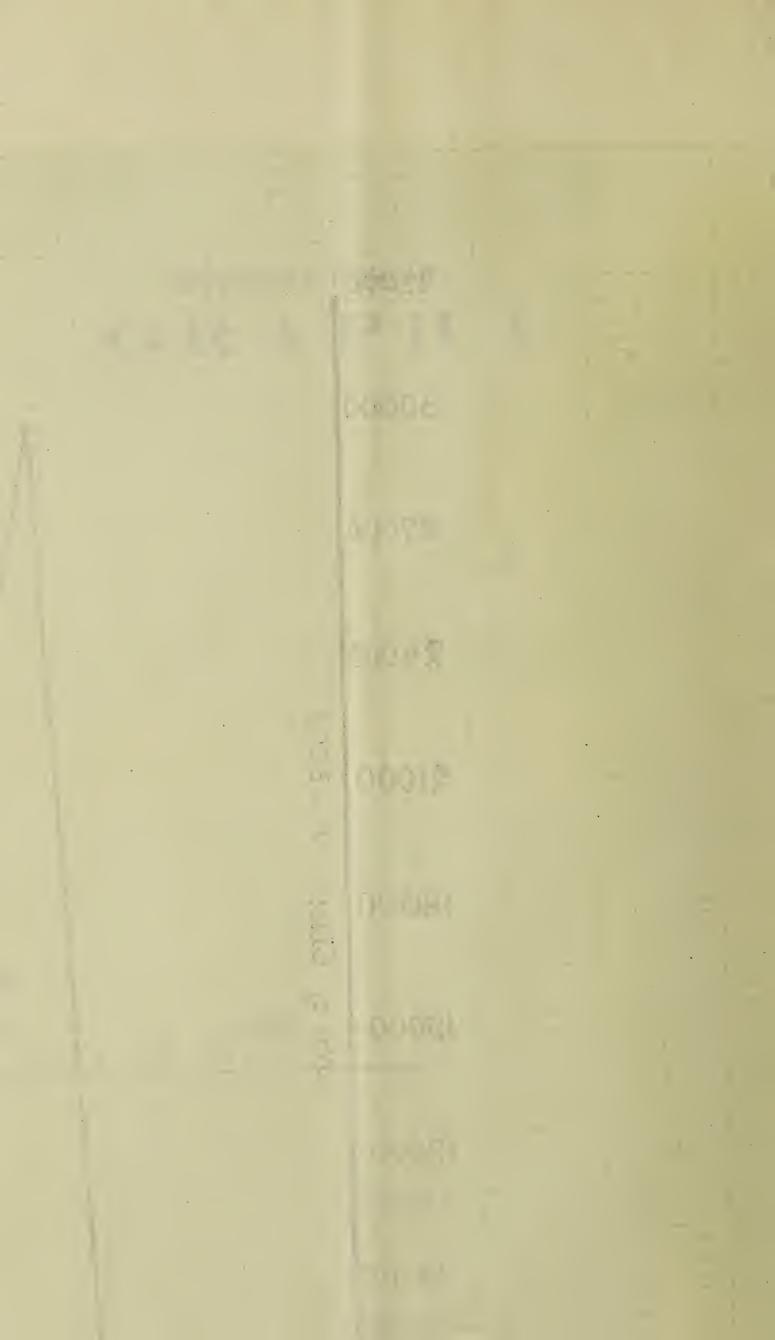
The epidemic which started on 19th May 1957, reached its peak during the third week and declined gradually by the end of the 7th week, after which the incidence was almost on pre-epidemic level. Of course before the epidemic started, the "Epidemic Influenza" was not a "Notified Infectious Disease" and hence, there were no authentic figures for the normal weekly incidence of this disease. Although notification of 'Influenza' was made compulsory after the 15th May 1957, notification to the Health Officer was very poor even from the State Hospitals and it is almost nil from private practitioners, though practitioners were found to be treating thousands of cases. There were 74,241 attacks of and 21 deaths due to Influenza notified to the Health Officer during the 7-week epidemic period from 19th May 1957. It was known that very few families escaped contracting the infection but the cases notified accounted to only about 4.5% of the population, which was definitely very much lower than the real. There was a definite indication of a far heavier infection of the City, as can be seen by an abnormal increase in the number of deaths due to all causes as well as due to Bronchitis and Pneumonia during the same period.

Statement No. 2, shows the week-war Incidence of cases notified, deaths due to Influenza, deaths due to Bronchitis and Pneumonia and deaths due to all causes.

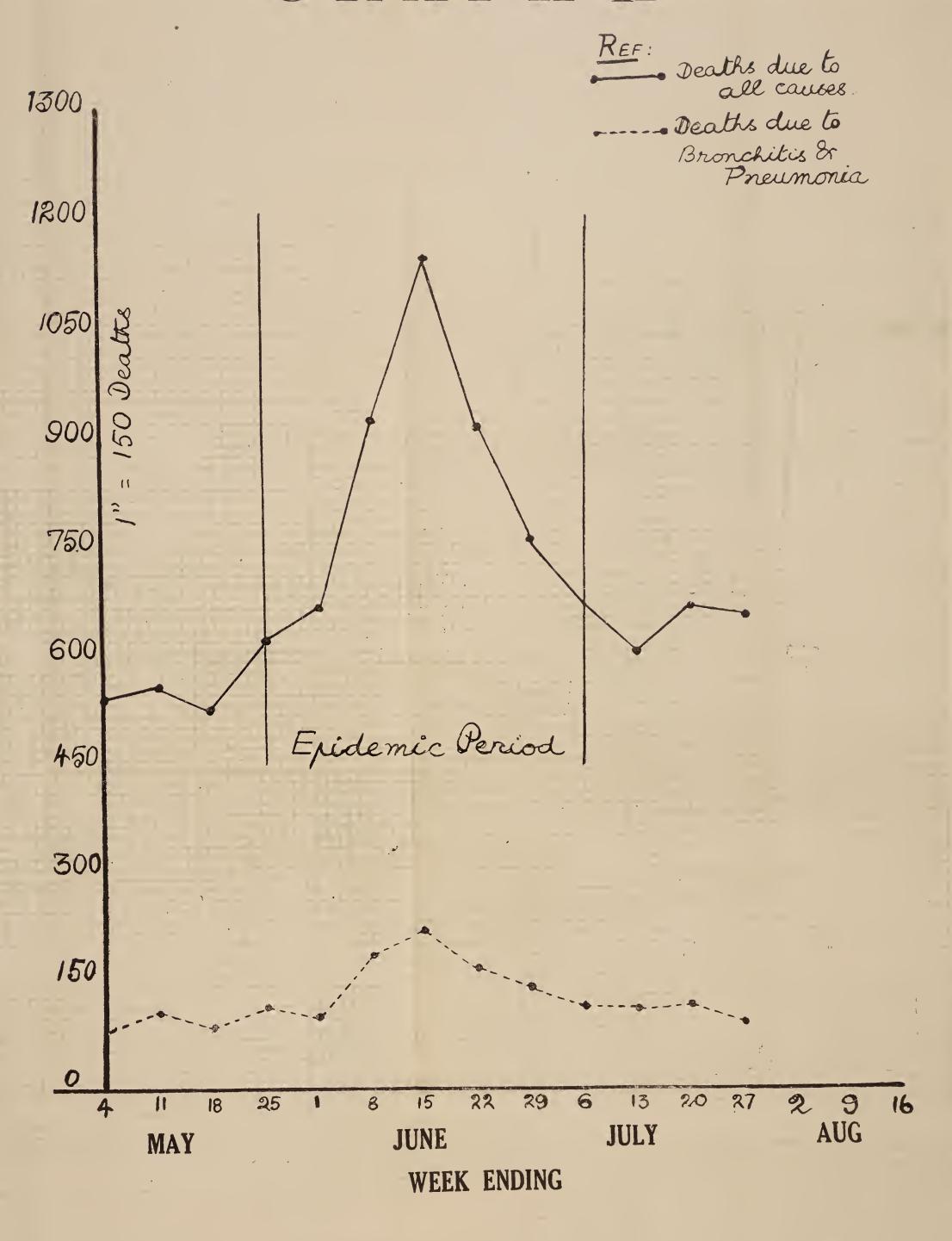
Week		Notified	Deaths due to						
Ending		Incidences of Influenza	Influenza	Bronchitis & Pneumonia	All Causes				
4 May	•••	_	_	77	541				
11 May	•••			102	556				
18 May	•••	_		78	526				
25 May	•••	654	1	112	616				
1 June	•••	4,535	5	108	668				
8 June	•••	30,534	7	184	929				
15 June	•••	21,029	5	221	1,148				
22 June		13,651	1	164	918				
29 June	•••	3,030	1	137	760				
6 July	•••	608		110	674				
13 July	•••	319		107	609				
20 July		264		113	673				
27 July		191	-	92	588				

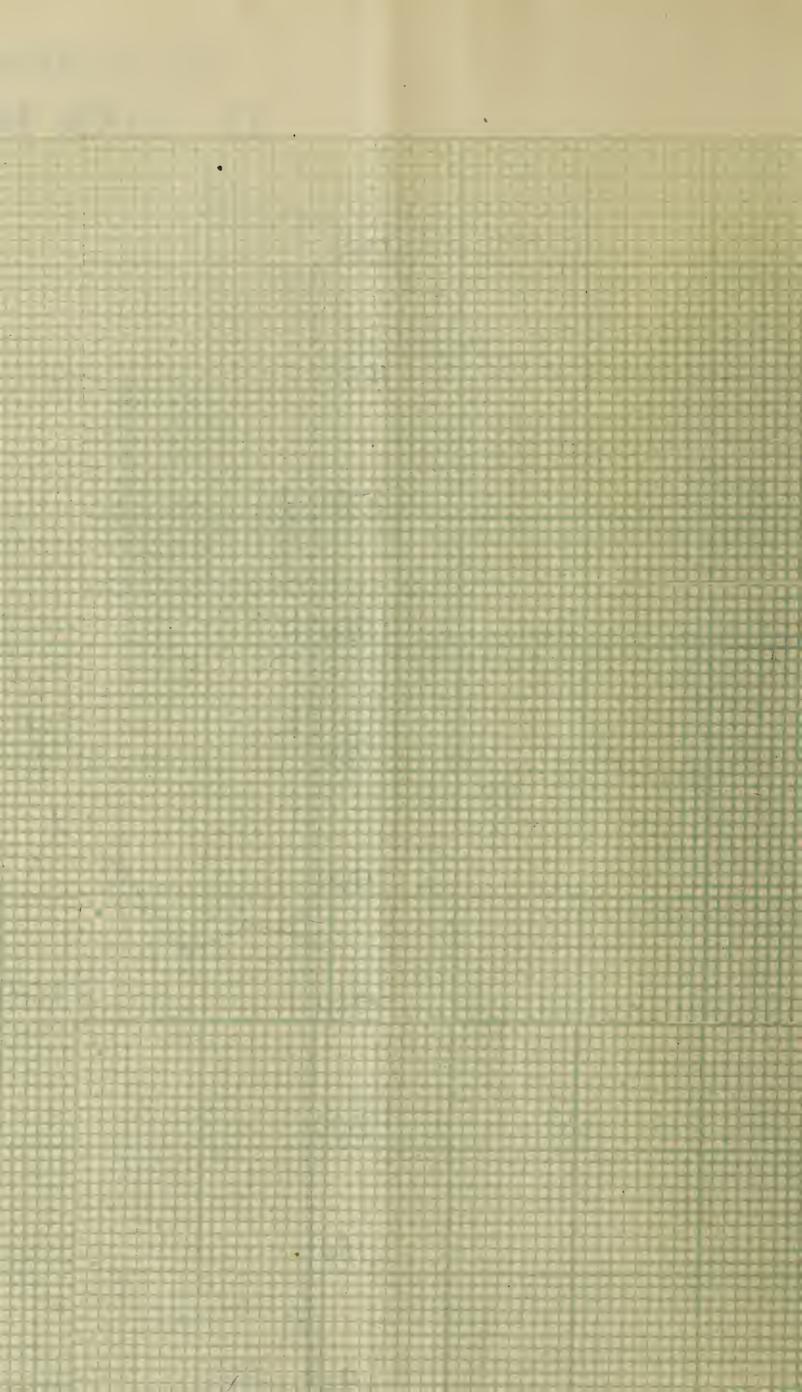
The Statement No. 2 and the corresponding Graphs 1 & 2, suggest that the increased mortality is in all probabilities due to Influenza, though the deaths were not registered as such, as otherwise there is no reason why there should be this abnormal rise in the mortality due to Bronchitis and Pneumonia. Since certification of deaths were not compulsory in Madras, several of these Influenzal deaths might have been passed off as Pneumonia and Bronchitis. Hence to get at the correct statistics of the incidence of, as well as deaths due to, Influenza, there was no other go except to do a sample survey, which was undertaken on 8th June 1957, when the epidemic has reached its peak. But several thousands of cases have been





GRAPHII





reported for at least 3 to 4 weeks after the survey was undertaken, and so, even the survey figures would only be partially correct.

The Survey

As per the instructions of the Director of Public Health and the Government of Madras, a random survey has been conducted to assess roughly the prevalence of Epidemic Influenza in the City. The proforma was printed and supplied to the various Divisional Sanitary Inspectors and the survey was finished in three days from the 8th June.

For the purpose of this survey, the houses and the streets were selected by the Office. From the key-list of the streets available, the number of streets in each division were divided by ten and the quotient has been taken up as frequency. If the balance after division is less than 5, the x/10th street has been taken as the first street and if it is more than 5, x/10 + 1 was the first street where 'x' was the total number of streets in the division. For example in a division of 49 streets, 5th, 9th, 13th, 17th, etc. were selected whereas in a division of 44 streets, 4th, 8th, 12th, etc. streets were selected. Similarly for houses also the total number of houses in the particular street were divided by 5 and the same principle followed. Barring a few exceptions, in general, a common formula was used in the survey and more than that the person who has selected the houses and the streets, had an open mind since he was not in the know of places of infection. Each division had ten streets selected and in each of 10 streets, 5 houses equally dispersed. This would cover about 2% of the houses in the City. Each family in the selected house was enquired into and the form was filled up. The data thus collected are tabulated and furnished. The following are some of the salient-features of the survey:-

		"
Total Number of Houses surveyed	•••	3,325
" " Families surveyed		5,366
" Persons interrogated		28,306
" " Families infected	• •, •	2,948
" " Persons infected		8,687
First cases who gave information of having attended Cinema shows within 4 days prior to the attack.	w >	148
" " First cases giving history of having direct contact with provious cases from Singapore		3
" " Deaths reported to be due to Influenza and not registered a such		3
Percentage of families infected	•••	55%
" persons infected	•••	30.7%
first cases who gave information having had Influenza within 5 day after attending a Cinema show	of) ys}	5%
Case fatality rate (%)	•••	0.0345 %
Estimated Mid-year Population for 1957	•••	17,58,607
" Influenza attacks as per this survey	¢ • •	5,39,892
" Deaths due to Influenza	•••	186.5

-41

. . .

It is found from the survey that in the Municipal Divisions within a mile from the Harbour the infection rate among the population was about 40-50 % and it gradually became less as one goes farther and farther from the Harbour. It can not be said definitely whether this was due to the fact that the infection was imported and implanted first in the Harbour area or that those areas are highly congested with a high density of population.

Another interesting point worth noting from the survey is that 5% of the first cases in each family have given history of having had the attack within 5 days after attending a Cinema show. This information is of a very great importance, indicating the important role played by the places of public resort in the spread of 'Air-borne' Epidemics.

As stated already, if the survey has been conducted at the end of the epidemic, we are sure, the infection rate would definitely be more than 50%.

Retrospection

Looking back on the epidemic it can be said that it had been a very mild one. The City was very heavily infected and nearly 60% of the population should have been affected. But the mortality was considerably very low.

It is not known how the infection started even before the passengers were disembarked from S.S. "Rajula" but it is easy to presume. Several members of the medical teams were going up and down between the shore and the ship and it is not difficult to imagine that there is every likelihood of their transporting infection from the ship on to the shore. Majority of these personnel also have been reported to have had the attack of influenza within a week after their work on the ship. Hence the infection in the City is in all probability due to the movement of the Medical Teams from the ship to the shore. However, from the results of the survey it has been found that there have been a few cases even before the arrival of the ship. Whether these cases were really "Asian 'flu" or not, cannot be categorically stated. Even if they were, that also can be explained by the possibility of importation of infection through S.S. 'State of Madras', which arrived from Singapore, 15 days prior to the ship when the Government of India Health Officials were not so particular and rigid in the medical examination of the passengers—especially with reference to this particular disease. There is also another possibility. Several hundreds of passengers from S.S. "State of Madras" have disembarked at Nagapattanam, where the medical examination is always cursary, in which case the infection in the City might be a result of infection in the State, for which we have no authentic reports.

Summary

- 1. S.S. "Rajula", carrying 1,797 passengers from Singapore, where "Asian 'flu" was raging in epidemic form, arrived in Madras in the early hours of 16th May 1957, heavily infected with "Asian 'flu' with about 250 to 300 patients of whom some have recovered and some were acute.
- 2. The Health Department of the Corporation of Madras have taken all the anticipatory precautions to combat the threatened out-break of epidemic in the City.
- 3. The Epidemic of Influenza started in the City on 19th May 1957, reached its peak during the 3rd week and declined by the end of 7th week.

- 4. Altogether, 74,241 cases were reported with 21 deaths and a case-fatality-rate of 0.028%. Of these cases, notified, 2,670 cases have been admitted as 'in-patients' in the Infectious Diseases Hospital, of whom 13 died.
- 5. Since notification of the cases were very poor and it was found that there were very few houses that have escaped infection, a sample survey had been conducted during the peak of the epidemic. This survey has given an attack rate of 30.7%. But as the epidemic has run atleast for 4 weeks after the survey was over, it will not be wrong to put the attack rate at 50% to 60%.

CHOLERA

Just as the citizens were recovering from the effects of the severe epidemic of Influenza, Cholera broke out suddenly—almost without a warning in the epidemic form—towards the end of June, and it continued till the end of November. Since the population was highly debilitated due to Influenza, the incidence of Cholera was comparatively high though localised to a few divisions in the City and the case fatality was also rather high, compared to those of previous years. All notified cases were isolated at the Infectious Diseases Hospital at Tondiarpet and strong preventive measures were taken. Additional staff were appointed at the Infectious Diseases Hospital and temporary sheds were erected for the increased accomodation. Special Cholera Inspectors and Observers were appointed for preventive work on the field. Additional conservancy staff were appointed in affected divisions to prevent the accumulation of rubbish and breeding of flies. All the refuse from the infected divisions were incinerated and no dumping of rubbish was done during the affected months. Mobile Conservancy Squads and Disinfection Squads were provided round-the-clock to follow the ambulances so as to facilitate immediate disinfection of the affected houses and conservancy of the affected locality. To avoid any delay in treating the cases, a Mobile Saline Transfusion Squad, manned by one of the Asst. Health Officers, assisted by a Staff Nurse, was pressed into action and about 100 cases of collapse were administered Intravenus Saline Transfusion at their own houses before they were removed to the Hospital and thereby their lives were saved. In all affected areas and vulnerable areas Cholera Inoculations were done in mass-scale and the further spread of the disease was arrested. In such of those areas, where there is no protected water supply, and in those areas, where the Corporation supply was defective, all the wells were chlorinated by special chlorination gangs. Liquid Chlorine was injected into the regional mains at different levels of distribution to ensure bacteriologically pure water supply.

Special Squads have been appointed for de-flying work. Insecticides were freely sprayed over all the dust-bins, market places and dumping grounds. Food stuffs, exposed to flies and dust, were seized mercilessly by special raiding squads.

Auto-rickshaws were employed for quick transport of Disinfecting Squads in the affected divisions, not only for the immediate disinfection of the infected houses but also for continuous disinfection atleast for 5 days for every infected house.

With all these measures of Isolation, Disinfection, De-flying and Preventive Inoculation and with the co-operation of the public, this Department was able to control the epidemic in such a short time.

The following is the statement showing the month-war incidence of Cholera:—

Months	Ci	ty	Mof	Mofussil				
Months	Attacks	Deaths	Attacks	Deaths				
January	3	1	0	0				
February	2	0	1	0				
March	0	0	0	0				
April	0	0	. 0	0				
May	11	2	4	2				
June	112	18	3	1				
July	161	24	10	3				
August	449	97	29	6				
September	679	140	69	11				
October	196	22	12	0				
November	396	72	27	6				
December	32	5	18	14				
Total	2,041	381	173	43				

ENTERIC FEVER

Enteric Fever was prevalent in an endemic form throughout the year and almost all the divisions of the City were affected. Though notification of this disease is compulsory, very few cases have been notified by the Private Medical Practitioners. Almost all the cases notified were only from the Hospital reports. Even from the Hospitals, when notifications were made on admission of suspected cases, further reports were not sent in several cases, furnishing the final diagnosis with the result the statistical figures, furnished here, are highly defective. Inspite of repeated requests, the co-operation from the City Hospital authorities and the general medical practioners is wanting.

187 persons were reported to have died of Enteric Fever during the year and total cases notified to this Department was 1,757.

In all cases notified the Divisional Sanitary Inspectors went to the infected houses, inoculated the immediate contacts and the neighbourhood, disinfected and de-flied the areas and chlorinated the wells. Proposals are being worked out to have a pilot scheme at least in certain areas of the City to do an epedimiological investigation of the occurrence of this disease.

MEASLES

627 cases of Measles were notified and 2 of them proved fatal due to the complication of Broncho-Pneumonia.

Tuberculosis (including the Tuberculosis of the Lungs):—Though a notifiable disease, the notification of Tuberculosis by the private practitioners continued to be poor. The Corporation of Madras runs 5 Tuberculosis Clinics—One at Pulianthope and the other four one each attached to Govt. Stanley Hospital, Government General Hospital,

Govt. Royapettah Hospital and Govt. Kasthurba Gandhi Hospital. The incidence of Tuberculosis and other control measures taken were discussed under 'Medical Relief'. There were 615 deaths registered due to this cause in the year 1957 as against 396 in the previous year.

INSECT-BORNE DISEASES

- 1. Kala-azar: 63 cases and 10 deaths from Kala-azar were reported to this Department during the year as against 147 and 33 respectively during the previous year. This great reduction in the incidence is probably due to the use of D.D.T, as a residual spray against the mosquitoes which incidentally kills the sand-fly, the vector of this disease. The spraying squads of the Malaria Section went to all the infected houses and sprayed the residual insecticide, D. D. T., in the infected houses and their sorroundings.
- 2. Malaria: The mortality due to Malaria has fallen down considerably due to regalar systematic spray of residual insecticide of the endemic areas of George Town, which have been brought under the National Malaria Control Programme. There have been only 18 deaths due to Malaria as against 33 the previous year. And this was the lowest on record. The following statement shows deaths due to Malaria year-war for the last 10 years:

- 11	Year	Deaths
	1948	40
	1949	37
	1950	102
	1951	91
	1952	75
	1953	96
	1954	105
	1955	75
10	1956	33
	1957	18

The anti-mosquito operations in the City mainly consists of measures against the larvae and pupae and measures against the adults. The later are completely taken up by the Senior Entomologist under the National Malaria Control Programme. These measures covered only 13 divisions of the City which were declared endemic to Malaria. The General Malaria Section dealt with larvaecidal measures for the whole City.

The Asst. Health Officers, assisted by 5 Malaria Supervisors, specially trained in Anti-malarial operations, were in-charge of anti-mosquito operations.

The usual breeding places of mosquitoes are storm-water drains, stagnating pools of water, cess pools and inside the houses, wherein condemned utensils, tins, etc., which are likely to collect water, are stored, and water cisterns. Besides these, unused wells, ponds and tanks are good sources of breeding mosquitoes. To deal with these various sources of breedings, the malaria staff have been divided into various categories of squads. The main aim is to see that every breeding place is treated once a week, since one week is the maximum time required for the egg of

a mosquito to become an adult. Though the storm-water drains of the City, which run into several miles, are treated every week the breeding places in every house was not able to be attended to weekly for want of sufficient staff, with the result the mosquito nuisance in the City could not be completely eradicated.

The different categories of squads employed in the anti-mosquito operation are the drain-cleaning gangs, de-sinting gang, fish gangs, house-inspection squads and tank-cleaning gangs. Besides these, as per international sanitary conventions, the Corporation is bound to keep half-amile area around the Harbour, free from aedes mosquito, which is a vector of the disease, "yellow fever". For this purpose special stegomiya squads are employed in the various divisions that fall within half-a-mile radius from the Harbour, whose duty is to inspect every house and every collection of water in those areas and see that there is no breeding of aedes aegypti.

During the year under review, 22,598 wells have been inspected and kept free from the breeding of mosquitoes by the introduction of larvicidal fish.

The main waterways, that flow through the heart of the City, namely Buckingham Canal, the Coovum River and the Adayar River, have become very good sources of breeding of mosquitoes due to the contamination of these waters with the sewage of the City. There is another channel which takes the sewage of Nammalwarpet and the tradewastes of B & C Mills—the Ottery Nulla is another source of good breeding. However much this Department is trying to control the mosquitoe-breeding in these waterways, yet they have become a great problem that could not be easily dealt with. Until some arrangements are made to divert all the sewage that enters these waterways, through some other route, this nuisance will continue.

As a routine measure in the endemic areas of the City, the residual spraying against the adults is conducted by the Senior Entomologist. However, on complaints and on payment of the scheduled fee, D. D. T. spraying has been done by this Department in several houses.

OTHER DISEASES

Rabies:—The Corporation has not undertaken any concrete measures to vaccinate all the dogs or atleast the licensed pet-dogs against Rabies. At present the vaccination is being done at the Veterinary College run by the Government of Madras. This department has confined itself only with the destruction of stray-dogs as one of the measures of control of Rabies. Though the incidence of Rabies in the animals and hydro-phobia in human beings is not very high; yet the dogs have a nuisance value.

There are two motor vans and eight licensed dog-catchers employed for seizing the stray-dogs in the streets of the City, working under the Superintendent of the Lethal Chamber. Every day the vans are taken round as per the stipulated programme, division after division, and the stray-dogs are caught. Special complaints are attended to immediately. The animals, that are thus caught, are immediately examined by our Veterinary Surgeons and frank rabid dogs amongst them are immediately killed by electrocution. The others are detained in the detention chambers for a period of three days from the day they are caught, during which time if any of those dogs are claimed by the owners, they are let off after collecting the licence fee for the current half-year and the feeding charges for the detention period. And all unclaimed dogs at the end of three days are electrocuted. 23,641 dogs were seized and detained and of these 12,309 were bitches. 2,337 dogs

were returned to the claimants and 434 were given to the various medical colleges for research purposes and the remaining were electrocuted. During the year 268 rabid dogs were destroyed. The total amount of rewards paid to the dog-catchers, amounted to 4,404.66 Rupees.

The demonstrations of the seizure and electrocution of dogs were given to the students of various Medical Colleges, Public Health Nurses, Health Visitors and Sanitary Inspector-students. The members of the S.P.C.A. visited the Lethal Chamber.

NATIONAL MALARIA CONTROL PROGRAMME

The National Malaria Control Programme, which has been implemented in the City of Madras from July 1955, has now been switched over to Malaria Eradication Programme throughout the country under national emergency. International authorities have laid particular emphasis on the need of urgency in eradication programmes and on the great importance of sound plan of action and of carrying it out with precision and on schedule. This programme will mean an all out war on Malaria—no matter what the cost—its object being to stamp out the disease completely in India before the mosquitoes develope resistance to insecticides. It is feared that if the eradication programme is not carried out energetically, a time may come when resistance types of mosquitoes will emerge out and spread Malaria unprecidented among non-immune population in the country and claim millions as its victims.

The Madras Corporation has recognized the importance of extending the fight against Malaria and agreed to participate in the programme to afford protection to a population at risk which is estimated to about 6 lakhs in the City. At the end of 1955, 2,08,872 that is 34.5% of the total population at risk had been protected. In 1956, the scheme was extended to protect 2,53,600 which means 42.3% of the population in malarious area and in 1957, the protection was further extended to cover 3,50,000 inhabitants as shown in the chart graphically represented. It has now been decided by the Council to extend the malaria control operations to protect all the six lakhs at the risk in the City.

Staff:—During the year under report, Sri Khasim Ali Miyan continued to be the Senior Entomologist in-charge of the National Malaria Control Programme in the City. The duties entrusted to him are that he should see that the programmes are carried out correctly and according to schedule by the staff of the unit; he should carry out post-operational malaria surveys to assess the results and study the behaviour of mosquitoe adults and larvae towards insecticides with the effect on the incidence of Malaria.

The personnel for the National Malaria Control Programme during 1957 consisted of the following:—

Malaria Supervisors	•••	2
Laboratory Technician	•••	- 1
Typist	•••	1
Attenders	•••	4
*Stegomyia Overseer	•••	1
*Maistries	•••	3
*Literate Thozhilali	•••	1
Drivers	•••	2
Cleaner	•••	1
*Peons	• • •	2
Thozhilalies	•••	25

(*Staff diverted from the General Malaria Section temporarily to the National Malaria Control Programme) Investigations into the prevalence of Malaria in the City of Madras:—

It will probably serve a useful purpose to consolidate below the available data of malariometric surveys undertaken before the initiation of the National Malaria Control Programme in the City.

Table No. 1

	Over a	ll spleen r	ate	Over all parasite rate			
Year	Number of children examined	Number found positive	rate	Number of smears examined	Number found positive	Parasite rate per cent	
1915	583	69	11.5	574	42	7.1	
1933	336	72	21.4	336	.20	5.9	
1934	•••	229		838	433	51.7	
1936	•••	•••		5,633	2,191	38.9	
1937	•••	•••	•••	2,450	749	30.6	

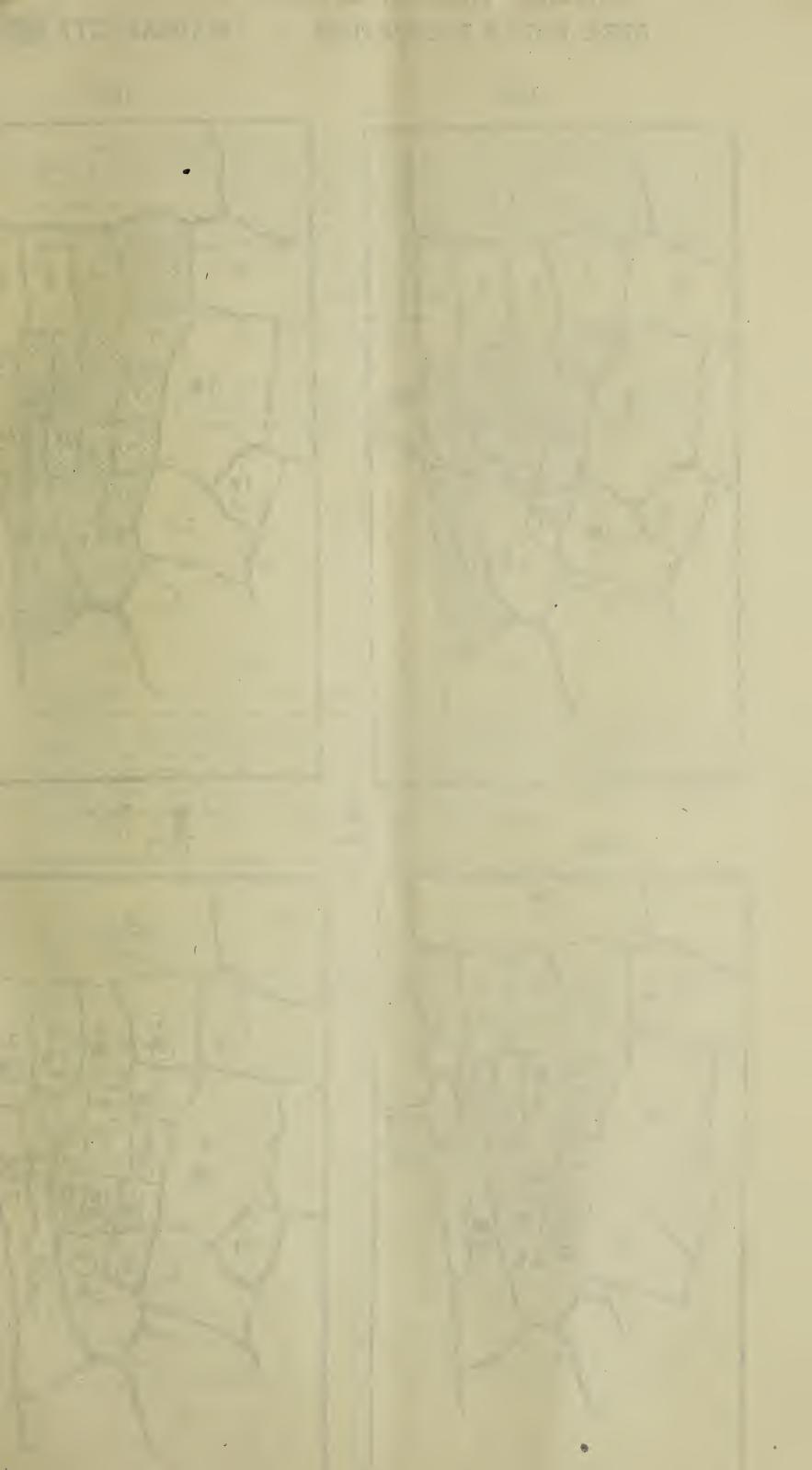
It has been recorded as a result of the malariometric surveys that Malaria is mainly confined to the northern portions of the Madras City particularly George Town and Park Town, that it is evenly distributed within this area almost throughout the year with periodic outbreaks of epidemics. It was noticed that nearly 80 to 90% of total enlarged spleens occurred among children attending schools in North Madras. In 1930 221 children in North Madras had enlarged spleens out of 327 for the whole City in respect of children reading in Corporation Schools.

The magnitude of the Malaria problem can be assessed from the following data recorded of Malaria cases and deaths due to Malaria during the years noted against.

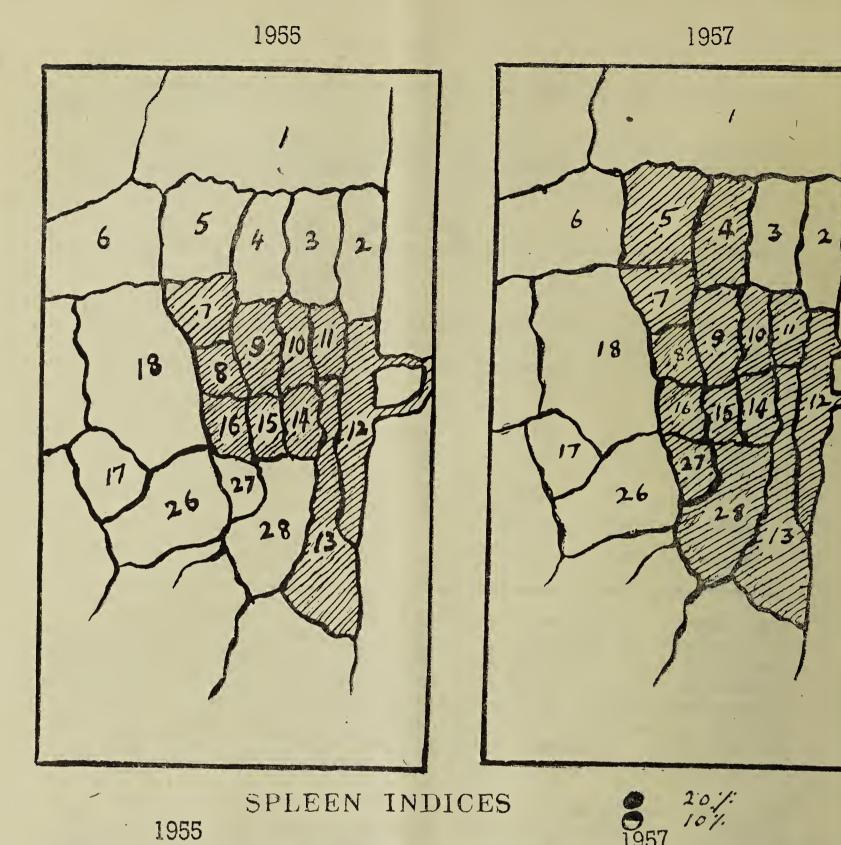
Table No. 2

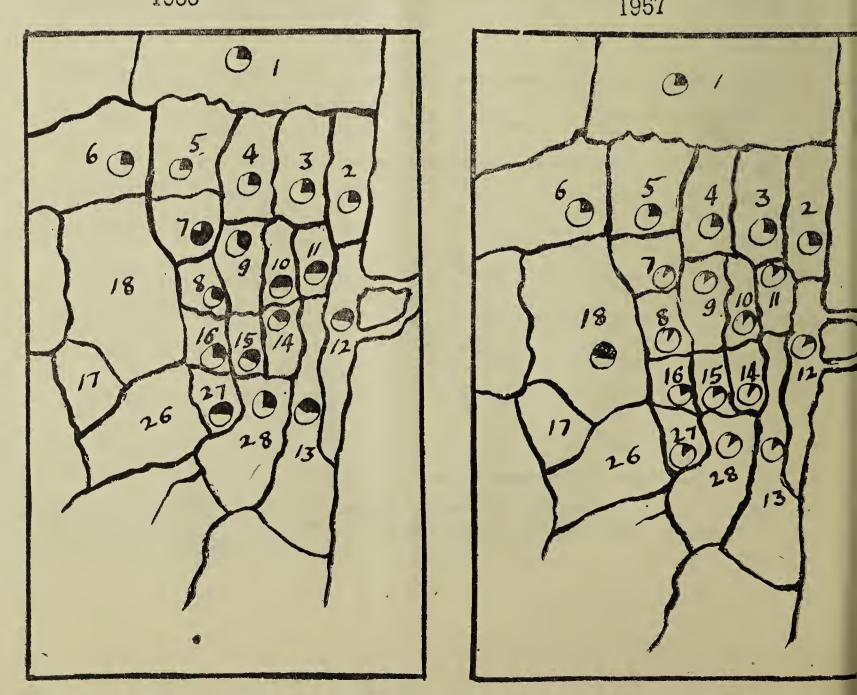
	0.0				
Year	Malaria cases	Malaria deaths	Year	Malaria cases	Malaria deaths
1925	Data not available	1,298	1939	6,251	43
1926	Do.	1,342	1940	8,933	29
1934	32,517	193	1941	9,001	30
1935	\$33,267	167	1951	12,969	91
1936	17,697	113	1952	17,341	75
1937	9,968	78	1953	13,773	96
1938	5,750	50	1954	9,454	105

Under these circumstances, the Madras Corporation agreed to join in the National Malaria Control Programme to secure total eradication of Malaria from the City.



NATIONAL MALARIA CONTROL PROGRAMME
AREA UNDER PROTECTION MADRAS CITY





Malariometric surveys were carried out after the implementation of the National Malaria Control Programme in the City during the year 1955, 1956 and 1957. 7,170 children for spleen enlargement and 1,273 blood smears were examined during 1957 as against 2,643 children and 421 blood smears in 1956 and 5,042 children and 983 smears in 1955. The systematic spraying of residual insecticides has brought about a remarkable drop in the spleen and parasite rates as shown below:—

Table No. 3

	Over a	ll spleen	rate	Over all	Over all parasite rate			
Year	Number of children examined	found	rate	Number of smears examined	found	rate		
Sprayed Area:	1				1			
1955	5,042	471	9.3	983	58	5:9		
1956	2,643	192	7.3	421	16	3.8		
1957	7,170	230	3.2	1,273	19	1.5		
Unsprayed Area:					1			
1955	•••	•••	•••	•••	•••	•••		
1956	5,766	265	4.6	861	19	2.2		
1957	531	29	5.5			•••		

The cumulative spleen rate in the sprayed area which was as much as 9.3% and parasite rate 5.9% in 1955 have now come down to 3.2% and 1.5% respectively in 1957 as shown in Graph No. II. The decline in the spleen rates and the parasite rates has been recorded in all the divisions sprayed as shown below:—

Table No. 4

		Pre-c	opera	ition		1	Post-op	eration	l	1.1	
No.	Name of the		1955		f	1956			1957		
	Division	Spleen		Para- site	Spleen		Para- site	Spleen		Para- site	
Division		Rate %	AES	Rate %	Rate %	AES	Rate %	Rate %	AES	Rate	
7	Basin Bridge	17.0	1.4	5.5	10.3	1.5	3.6	2.0	1.5	1.0	
8	Peddunaickenpet	7.9	1.4	7.4	6.6	1.6	4.2	2.7	1.5	1.6	
9	Seven Wells	8.4	1.5	6.9	5.4	1.3	2.4	3.7	1.3	0.9	
10	Ammen Koil	10.6	1.4	4.7	7.5	1.6	3.9	3.6	1.5	1.6	
11	Muthialpet	9.7	1.5	7.3	6.0	1.6	4.9	2.8	1.3	1.9	
12	Harbour	9.7	1.5	5.2	6.0	1.5	2.9	3.3	1.6	1.2	
13	Kachaleeswarar	8.7	1.6	5.6	4.8	1.6	2.0	3.4	1.5	2.0	
14	Kothawal Bazaar	8.2	1.4	7.5	4.9	1.6	3.8	1.7	1.5	2.2	
15	Sowcarpet	9.5	1.4	7.3	5.8	1.8	3.4	4.5	1.5	1.0	
16	Trevelyan Basin	6.4	1.3	4.7	4.9	1.5	1.2	4.8	1.4	1.2	
27	Edapalayan			• • •	10.3	1.6	4.3	2.9	1.4	2.0	
28	Park Town	•••		•••	7.3	1.7	2.5	2.9	1.8	1.3	

Degree of spleen enlargement:-

The degree of spleen enlargement or the size of the spleen mass has also been determined along with the spleen survey. A table consolidating the determination of the spleen mass for the last 3 years is given below:

Table No. 5

		Sp	leen Size				
Year	(1)	(2)	(3)	(4)	(5)	Total	AES
1955	180	146	9	¥\$.	•••	335	1.5
1956	206	225	14		•••	445	1.6
1957	120	107	3	(=)	•••	230	1.5

Children with enlarged spleens found in 1957 show a remarkable reduction in all sizes. Out of 230 children found with spleen enlargement during 1957, 120 children were having spleens of size one as against 206 in 1956 and 180 in 1955. The number of children with size two spleens were 107 and with size three spleens were 3 in 1957 against 225 and 14 in 1956 and 146 and 9 in 1955. The average enlarged spleen in all the three years however remain almost the same as it will take time for the general reduction in the spleen size. Children having spleens of sizes 4 and 5 have so far not been recorded in the City.

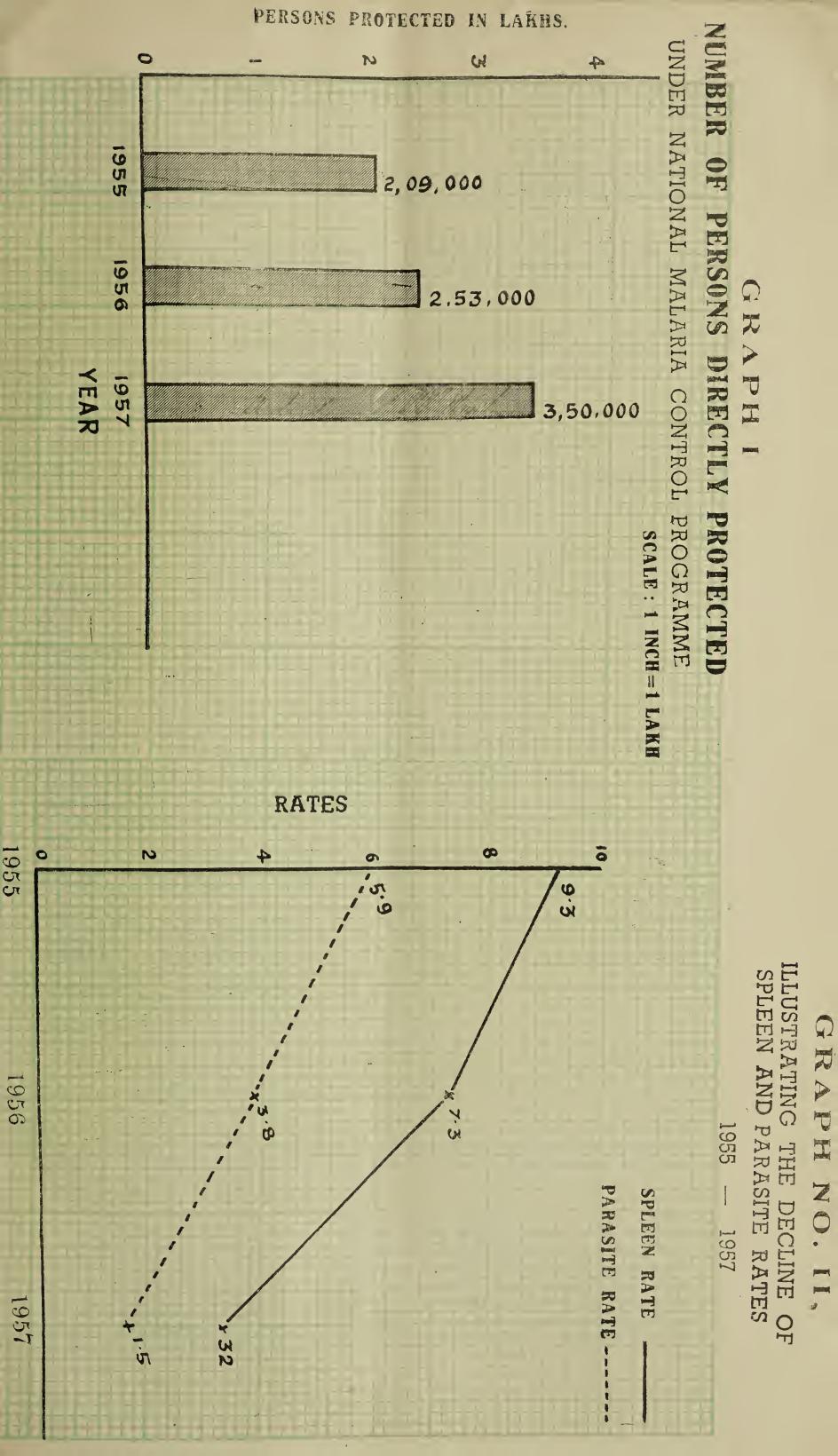
Parasite Survey:—

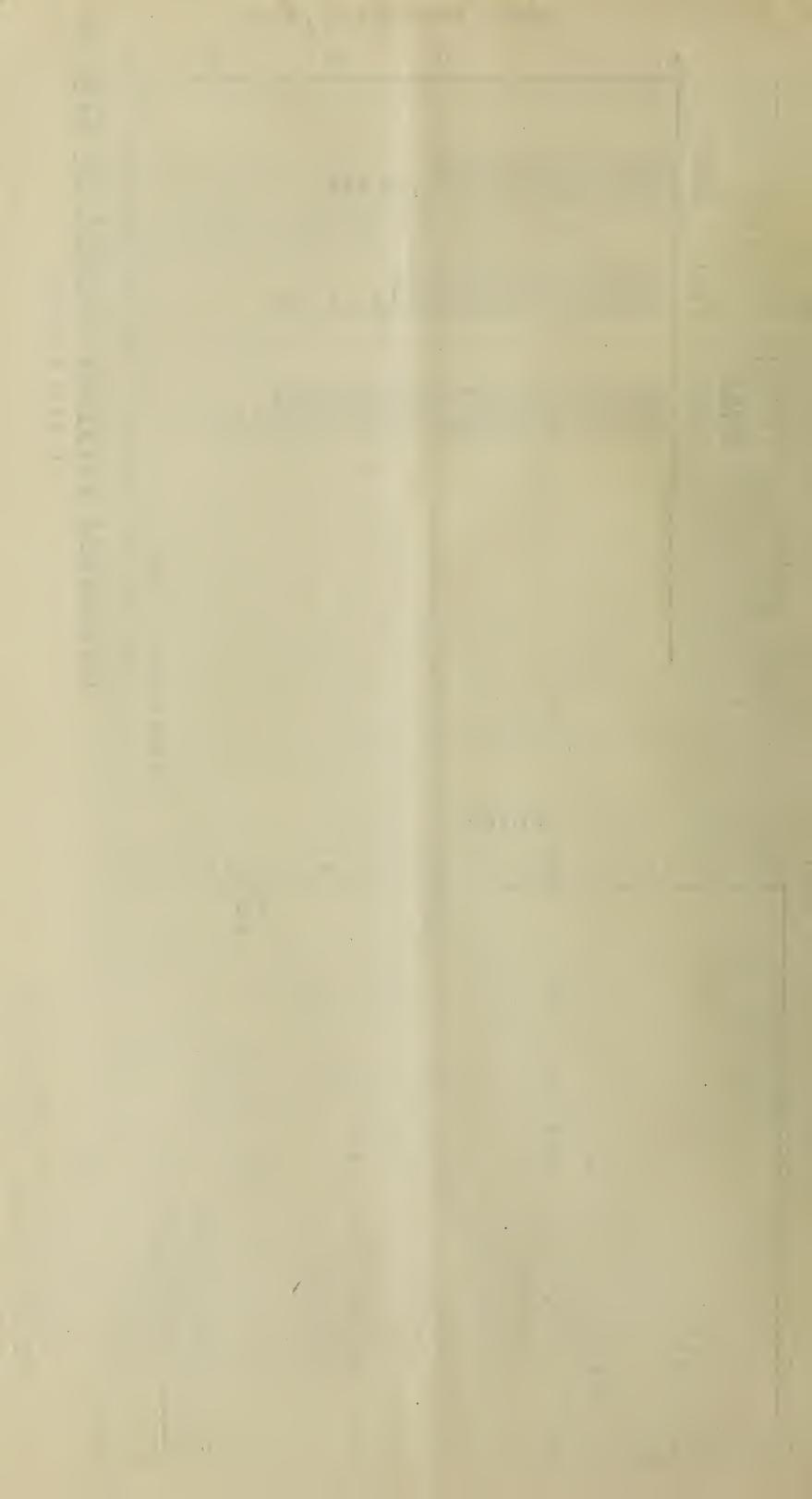
1,273 blood smears prepared on the accepted method of making a thick and thin smear on the same slide were taken in 1957 as against 944 in 1956 and 983 in 1955 from children of the age group between 2 and 10 years.

Table No. 6

05 to	Blood Examination Plasmodium species							
Year	Number of smears examined	Number positive	Parasite index	BT	MT	Q		
1955 1956 1957	983 944 1,273	58 32 19	5·9 3·4 1·5	21 8 7	47 23 12	•••		

The cumulative parasite rate works out to 1.5 per cent in 1957 as against 3.4% in 1956 and 5.9% in 1955. It may also be seen from the above data that MT was found to be the predominating species of Plasmodium followed by BT in all the three years but the reduction of Plasmodium vivax is slow when compared with Plasmodium falciparum which is indicative of the static condition of Malaria prevalent in the City. No quartan parasites were encountered.





The details of the children examined in each division for spleen enlargement, spleen size and for malaria parasites are given in the Statistics Supplement.

The details of examination of blood smears received from the various dispensaries of clinically diagnosed cases of Malaria are furnished below month wise for the year 1957.

Table No. 7. Showing the results of examination of blood smears received from the Corporation Dispensaries.

1957

	14	Blood Ex	amination	Plas	Plasmodium Species				
Month	10	Numbers of smears	Numbers positive	вт	МТ	Q			
January	• • •	20	4	3	_1				
February	•••	•••	• • •	•••	•••	•••			
March		7	1	•••	1	•••			
April	•••	5	2	•••	2				
May	•••	8	2	•••	2	•••			
June	•••	1	•••	•••		•••			
July		1	•••	•••	•••	•••			
August	١	6	1	1	•••	•••			
September		3	•••	•••	•••	•••			
October	•••	1	• • •	•••					
November	• • •	9	1	•••	1				
December	•••	17	2	•••	2				
Total	• • •	78	13	4	9	• • •			

Malaria cases have been recorded both from sprayed and unsprayed areas. Out of 78 blood smears received from the Corporation Dispensaries, 13 were found positive for Malaria. The predominating Plasmodium species was P. falciparum (MT).

Malaria Morbidity:—Up to about 1955, there were from 6,000 to 17,000 Malaria cases treated in the Corporation Dispensaries a year. Since 1955, the year when N.M.C.P. was instituted in the City, the number of cases show a general decline in the unsprayed area and marked decline in the sprayed area. There were about 2,650 Malaria cases in 1956 and 2,402 in 1957 which work out to 2.5% and 2.3% of the total attendance in the Corporation Dispensaries in the uncontrolled area. The number of

Malaria cases treated in six Dispensaries in the sprayed area from 1955 is expressed below.

Table No. 8.

		1955			1956			1957	·
Dispensaries in the controlled area	Total attendance	Malaria cases treated	Morbi- dity Rate	Total atten- dance	Malaria cases treated	Morbi- dity Rate	Total atten- dance	Malaria cases treated	Morbi- dity Rate
Mafus Khan Dispensary	41,544	31	0.01	39,757	4	0.001	37,874	2	0.001
Mannady Dispensary	22,341	314	1.4	21,443	43	2.2	18,313	52	0.001
Mint Dispensary	64,063	355	0.55	58,780	172	0.3	53,597	7	0.01
Muthialpet Dispensary	65,405	300	0 005	86,636	424	0.48	47,276	_	
Seven Wells Dispensary	_		-	13,837	107	0.57	30,275	97	0.32
Trevelyan Basin Dispensary		_		33,176	149	0.45	28,234	51	0.18
Total	1,93,353	1,000	0.21	2,53,629	899	0.35	2,15,569	239	0.09

From this quantitative evidence, it is inferred that there is a marked reduction of malariousness in the sprayed area. The malaria morbidy ranged from 0.5 % in 1955 to 0.09 % in 1957 as against the average annual malaria morbidy rate of 4.0 % before spraying.

Entomological findings:—Besides the epidemological data given above, the comparative density of mosquitoes in the sprayed and the contrast areas have been used in determining the duration of the toxic effects of the residual insecticides sprayed. Regular daily collections of adult mosquitoes are made in 2 human dwellings, 1 mixed dwelling and a cattle shed besides supplementary catches in each of the three divisions in the sprayed area and three divisions in the contrast area.

The following anopheline species were individuated in the sprayed and contrast areas in 1957.

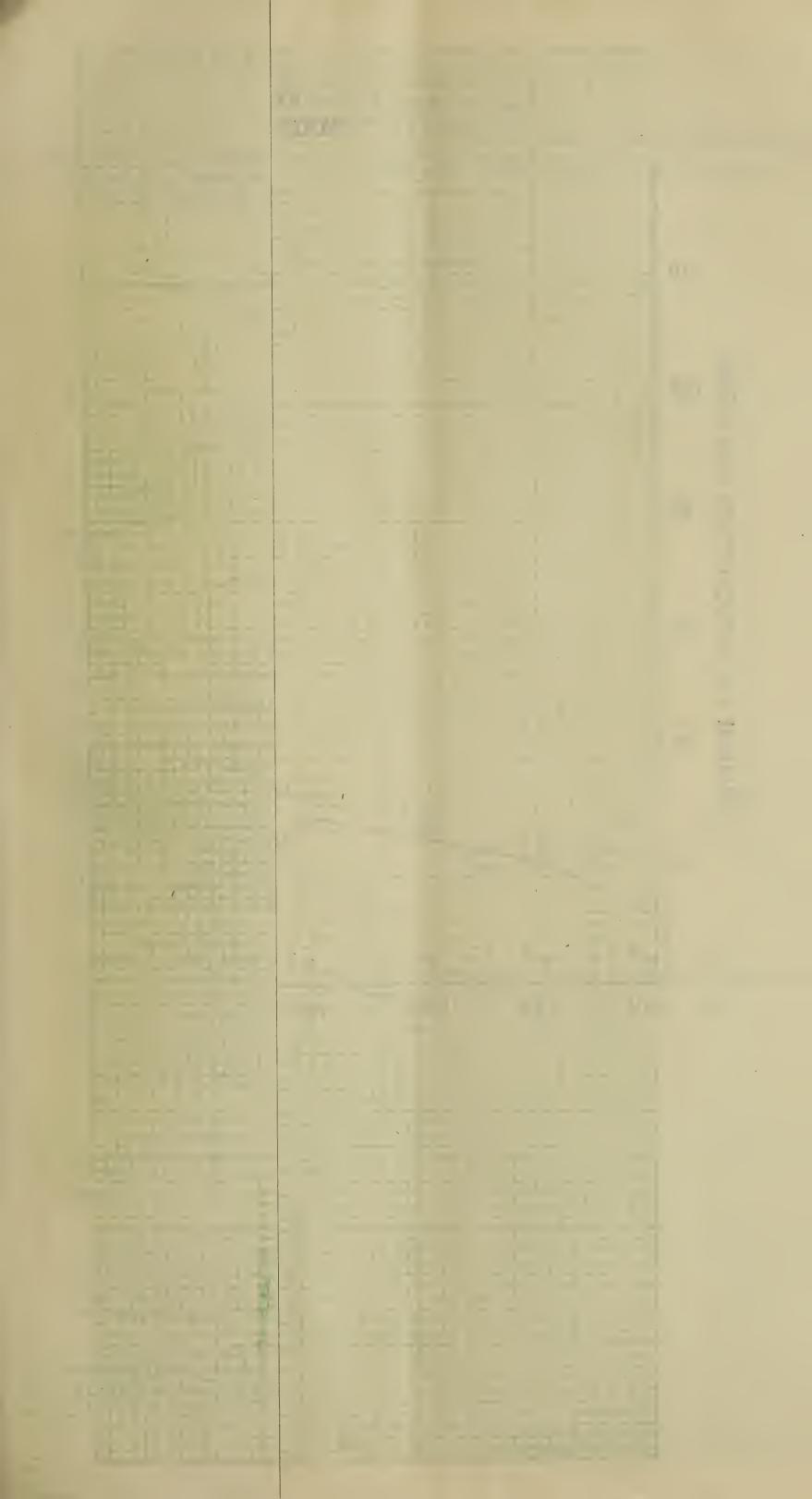
A. subpictus

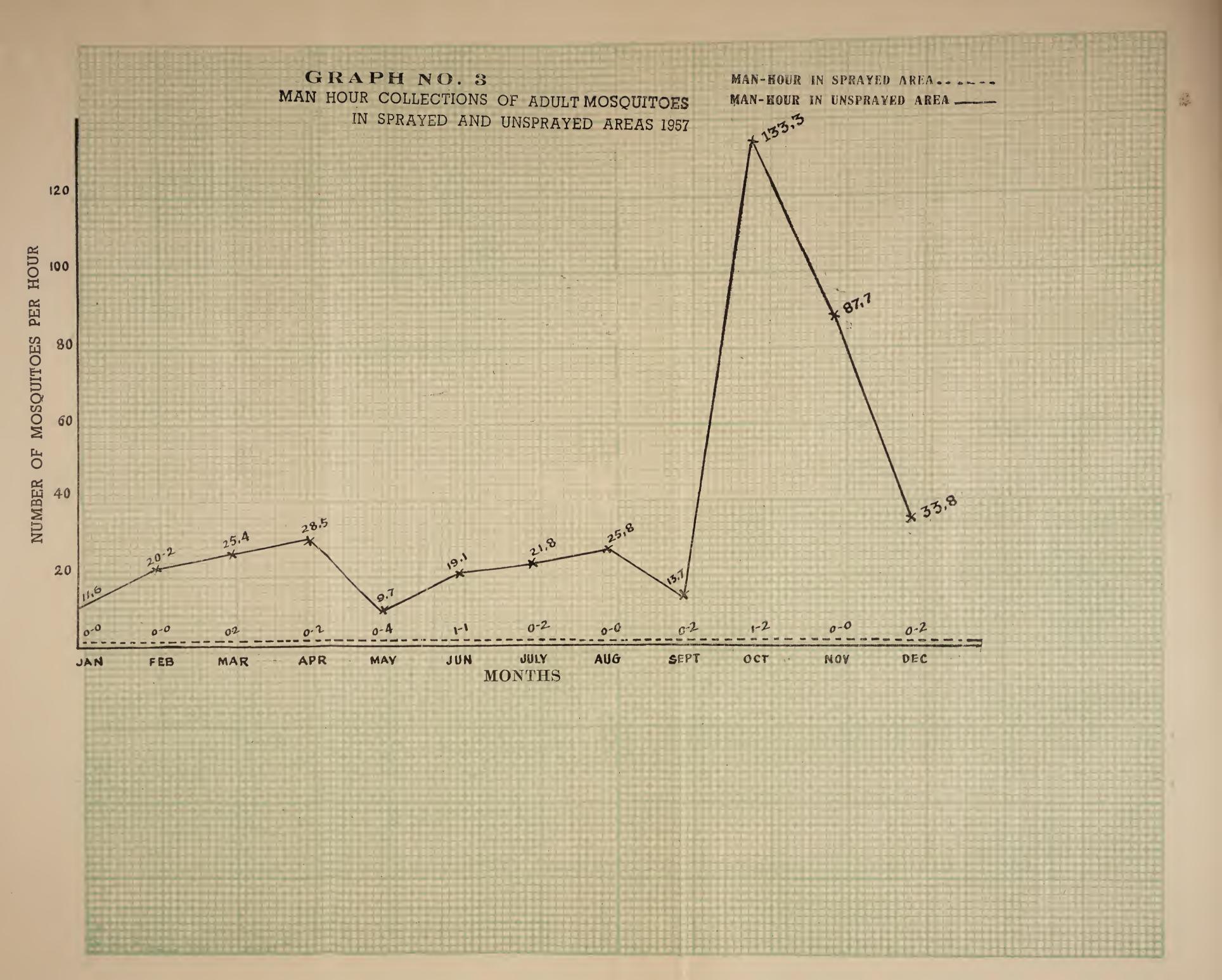
A. vagus

A. subpictus or vagus male

502 hours have been spent for adult collections in human and mixed dwellings and 168 hours 20 minutes in cattle sheds in the sprayed area and 571 hours 30 minutes in human and mixed dwellings and 106 hours 10 minutes in cattle sheds in contrast area in 1957.

The prevailing incidence of the anopheline species in the controlled and the contrast areas in terms of human hours is expressed in a tabular from appended and in the Graph No. 3. In the sprayed area, the absence of anophelines is very striking during the year 1957 except 21 Anophelines





for the year whereas in the contrast area during the same period, 1,825 were collected in human and mixed dwellings and 196 in cattle sheds as may be seen from the tabular statement given below:—

Table No 9.

	Controlled Area						Contrast Area					
	1957 1956					1957			1956			
Stations	Total man hours	Total Ano- pheli- nes	Ten man hours									
Human and	н. м	,		н. м.			н. м	,		н. м.	٠	
Mixed dwelling	502-0	16	0'31	535–23	3	0.06	571–30	1825	31.93	652-45	1731	26.52
Cattle shed	168-20	5	0.29	205–47	1	0.05	106–10	196	18•47	163–30	447	2 7 ·33

The fundamental requirement for the prevention of Malaria is to effect the quantitative reduction of malaria vector species to densities below levels of malaria transmission and prevent the contact between mosquitoes and sleeping men. It is for these reasons that adult killing by the application of insecticides is placed first for controlling Malaria. Anopheles stephensi, the carrier of urban Malaria, is totally absent in the adult collections for the whole year. Searches made by the Investigation Unit of the Director of Public Health, Madras, have also not been fruitful in catching A. stephensi thereby indicating effectiveness of the National Malaria Control Programme in the City. However searches are being continued to find out whether they have changed their resting places.

Larval Survey:—Supplemental programme of larval collection was continued in the City during the year under report to ascertion the species of mosquitoes prevalent, to identify the areas to which the control measures should be applied and to check the effectiveness of the control measures. Collections were sent to the laboratory where they were identified either in larval stage or adults. 1,694 wells were searched for Anopheline breeding in 1957 as against 241 wells in 1956 in the sprayed area and 715 wells were searched in 1957 as against 116 wells in 1956 in unsprayed area.

Anophelines were not found breeding in the controlled area where as Culicines were collected in 94 wells in 1957 and 11 wells in 1956. Anopheles stephensi was not caught in any of the wells searched in the controlled area.

Anti-parasitic measures:—Free supervised distribution of anti-malarial drugs was continued among malaria patients in all the divisions in the controlled area under report. A single dose Avloclor tablets had been administered at the spot to malaria cases. In 1957, 261 malaria patients were treated as against 550 in 1956 and 354 in 1955.

Spraying operations:—The risidual spraying was carried out by trained labour under close supervision. The inner surfaces of walls and as much of the ceilings as could be approached of human dwellings and

cattle sheds were sprayed. The usual application of 1 gallon of 5% "ready to use suspension" to every 2,000 Sq. feet of superficial area of the houses was carried out to give DDT deposit of 100 mgm per Sq. Ft. During the year under report, the spraying operations were extended to the 4th Division Sanjiviroyanpet and the 5th Division Korukupet, besides the controlled area from 7th Division Basin Bridge to 16th Division Trevelyan Basin, 27th Division Edapalayam and the 28th Division Park Town. 27,026 houses were sprayed in 1957 as against 19,735 houses in 1956, an increase of 7,291 structures over that of 1956 which works out to 36.9% and 10,740 houses in 1955. The number of houses missed due to refusals or locking was 4,569 in 1957 against 5,009 in 1956. 47,920 lbs. of 75% DDT wettable powder was consumed during the year 1957 as against 42,120 lbs. in 1956 and 16,762 lbs. in 1955.

The following is the summary and analysis of the work done in spraying campaign in 1956 and 1957.

			1956	1957
(:	a) Total number of houses treated		19,735	27,026
(o) Superficial Area treated	•••	12,64,20,000 Sq.Ft.	15,44,32,000 Sq.Ft.
٠ (و	c) Inhabitants directly protected		2,53,586	3,50,000
(d) DDT consumed Dieldrin consumed	•••	42,120 lbs.	47,950 lbs. 667 ,,
(6	e) Man hours of labour (actual spraying time)	•••	43,575	47,400
t)) Motor transport	•••	3,351 Miles	6,765 Miles.
		Ana	l ysi s	
(8	a) Superficial area per house treated	•••	6,407 Sq.Ft.	5,714 Sq.Ft.
(1	b) Inhabitants per hours both treated and missed	•••	10	11
(0	e) DDT spent per house	•••	2.13 lbs	2.0 lbs
(0	l) Man hour of labour per house	•••	2.2	1.8
(€	e) Superficial area treated per capita	•••	498.5 Sq.Ft.	441 Sq.Ft.
(f	Superficial area treated per man hour	•••	2,901.2 Sq.Ft.	3,258.1 Sq. Ft.
(§	g) DDT consumed per capita	•••	0.16 lbs.	0.16 lbs.

Cost:—The National Malaria Control Programme has been carried out in the City in 1957 at a cost of Rs. 36,072 (excluding the pay and allowances of the staff diverted from General Malaria Section) as per details given below:—

1.	Establishment	•••	Rs	. 12,072–00
2.	Labour	• • •	Rs	. 18,000-00
_3.	Contingencies	•••	Rs	. 6,000-00
	Total	• • •		36,072-00

This works out at 10 naya paise per head per year as against 44 naya paise in India and 96 naya paise in Ceylon. Even if the pay and allowance of the diverted staff are included, the per capita expenditure does not exceed 12 naya paise.

The following supplies have Government:—	been	made	from th	e Central
AND THE PERSON NAMED IN COLUMN TWO IS NOT THE OWNER.	1955	·	1956	1957
Trucks	2		_	1-0
Power sprayer	2		-	*********
Hand compression sprayer	12			
Stirrup-pumps .	30		***********	
Drugs:				
Resochin	740			/
Nivaquine 1	,000	-	-	-
Avloclor	*********	10	,000	
Insecticides:—				
DDT 75 % Wettable 1,39,000	lbs.	75,422 1	bs. 3	80,095 lbs.
Dieldrin 50% Wettable 600	,,	1000	,,	400 ,,

The following have been spent during 1957 as compared to 1955 and 1956.

Drugs:—		·	
Resochin	MANUSAMENTO.	740	-
Nivaquine	793	207	****
Avloclor	******	_	925
Insecticides:—			
DDT 75% Wettable	16,762	42,140	46,944
Dieldrin 50% wettable	Management of	_	567

Other activities:—

Experiments were conducted in the laboratory and the field to find out the effectiveness of residual insecticides against bed bugs in houses and the reported development of resistance of bed bugs to DDT in the City. The Corporation Tenements in the 12th Division Harbour, a controlled area which were infested with bugs, were sprayed with different formulations of DDT, BHC, Dieldrin and Diazinon on 11th March 1957. The bugs were daily trapped from the tenements, treated with different

insecticides and kept under observation to find out their survival rates. It was noted that bugs in the controlled area have developed resistance to DDT wettable and BHC. 5 % DDT solution and Dieldrin were found to be better alternatives but not very effective in giving complete relief though their residual texicity was of long duration. Diazinon, which is not a stable compound, was effective only for about 10 days.

A second series of laboratory experiments were conducted during November 1957 to find out the development of resistance of bed bugs to 75 % DDT in different strengths. It was observed that bugs get killed in higher concentration of DDT with exposure of long duration. It was necessary for more than 50 % kill to expose the bed bugs to 5 % to 10 % DDT concentration for over 4 minutes.

Control of Kala-azar in the City

Incidental to Malaria Control Programme:—

The World Health Organisation is gathering significant information on what has already been accomplished in the World in the control of Leishmaniasis either as a primary objective or incidental to anti-malaria campaigns. It has been observed that Visceral Leishmaniasis (Kala-azar) is in an endemic form in the North, Central and Southern portions of Madras City. The number of cases treated in various Hospitals of the City are as follows:—

Year	1950	19'51	1952	1953	1954	1955	1956
Kala-azar	3,046	3,142	5,356	1,149	3,006	3,005	673

It may be observed that there is a marked decline in the incidence of Kala-azar cases in 1956 after the implementation of N.M.C.P.

Phlebotomus control by DDT spray is only incidental to antimalaria campaign under National Malaria Control Programme in North Madras alone. With effect from July 1955 no phlebotumus has been recorded from this area after the spraying operations.

Conclusion:—It is estimated that about 6 lakhs live in malarious areas in the City and 3,50,000 have been directly potected in 1957 under NMCP. Systematic spraying of residual insecticides have brought about a remarkable drop in spleen and parasite rates which are an exact indication of the extent of infection. Good results can also be seen from the fact that Malaria attendance in the Corporation dispensaries have shown a marked decline. This is a good achievement but it must be borne in mind that there are still about 2,50,000 who remain unprotected and that only one round of DDT residual spraying is being carried out instead of the prescribed two during the malaria transmission as the present strength of the staff sanctioned for NMCP is quite inadequate for complete coverage. There is also an urgent need to accelerate the progress of operation for eradicating malaria through out the City as in the country before the threatened development of resistance in mosquitoes to insecticides takes place. Under these circumstances it has been dicided with the approval of the Director of Public Health, Madras to extend the area of operations to as many divisions as possible in the City with one round of DDT residual spraying subject to the condition that anti-larvae measures against malaria vectors are intensified. The Council has approved the extension of the NMCP to cover the entire malarious area and the appointment of an adequate minimum staff is awaited.

SANITATION

Dr. B. V. Sundarababu, M.B.B.S., D.P.H. (Cal), is the Health Officer. The Health Officer is assisted by four Assistant Health Officers.

Dr. P. V. Balakrishna Marar, LM. & S., B.S.Sc.

Dr. A. Ramachandra Rao, M.B.B.S., B.S.Sc.

Dr. I. Gopalakrishnan, B.A., M.B.B.S., B.S.Sc.

Dr. N. Dhakshinamurthy, M.B.B.S., B.S.Sc.

Each Asistant Health Officer was in-charge of a range comprising of ten and more divisions.

There were 61 Sanitary Inspectors in-charge of 50 divisions of the City during the year.

There were 5 Food Inspectors to take samples under the provisions of the Prevention of Food Adulteration Act. There were also 5 Malaria Supervisors in-charge of the Anti-Mosquito operations.

1. FOOD SANITATION

Hotel Sanitation.

	1.	No. of renewal applications received for food	
	7-	handling establishments under section 279	2,555
`	2.	No. recommended	2,257
	3.	No. refused	296
	4.	No. of new applications under section 279	107
	5.	No. recommended	90
	6.	No. refused	17
	7.	No. of Coffee Hotels with Meals Section	175
	8.	No. of Coffee Hotels without Meals Section	333
	9.	No. of Eating Houses only	622
1	0.	No. of Tea Clubs	238
1	1.	No. of Tea Stalls, Tea Shops or Tea Stands	837
1	2.	No. of Canteens attached to firms, offices etc	157
1	3.	No. of Mobile Canteens	5
1	4.	No. of Lodging Houses without boarding registered under the Public Health Act	77
1	5.	No. of Lodging Houses with boarding registered as	, ,
		well as licensed under the City Municipal Act	61

Food Adulteration :-

There were 5 Food Inspectors to take samples under the provisions of the Prevention of Food Adulteration Act. They were in charge of 10 divisions each respectively. The samples consisted of milk, butter, ghee, gingelly oil, tea, ghee substitutes, termeric, arrowroot, honey and other articles. 6,190 samples were analysed under the Prevention of Food Adulteration Act. 4,178 samples were genuine and the remaining 2,012 samples were found to be adulterated.

Prevention of adulteration of milk is by far the most important duty from Public Health point of view. 44.5 per cent of the milk samples were adulterated in 1957 against 42.1% in 1956. Though a record number of milk samples were analysed during the year under report, adulteration of milk has not shown the anticipated decrease in 1957. So long as

the trade remains in the hands of small vendors and so long as the fines imposed by the Magistrates are not deterrent, adulteration of milk can not record any appreciable decline.

Milk Sanitation

1.	I I	
	section 299	679
2.	No. recommended	558
3.	No. refused	121
4.	No. of licensed milk men	985
5.	No. of licences renewed for old milk depots other than those of Madras Co-operative Milk Supply Union	156
6.	No. of milk depots of the Madras Co-operative Milk Supply Union of which licences are renewed.	56
7.	No. of new milk depots opened by the Union during the year	7
8.	No. of unlicenced milk depots	32
9.	No. of notices issued in respect of item 8	32
10.	No. prosecuted for non-compliance	28
l1.	No. improved and made fit for licensing	7
12.	No. closed as a result of action taken	9

Market Sanitation

Markets:—There were 8 Public Markets and 43 Private Markets in the City of Madras.

Public Markets:—The eight public markets were maintained by the Corporation at the following places:—

- 1. Smithfield Market, Rotlers Street, Choolai, 17th Division.
- 2. Ayanavaram Daily Market, Palavayal Street, 21st Division.
- 3. Poonamallee High Road, junction of McNichols Road and Poonamallee High Road, 22-A Divison.
- 4. Moore Market, Poonamallee High Road, 26th Division.
- 5. Mallaya Market, Wall Tax Road, 27th Division.
- 6. Fruit Market, Nethaji Subash Chandra Bose Road, 28th Division.
- 7. (a) Corporation Vegetable Market, Sir Theyagaraya Road, 36th Division.
 - (b) Corporation Mutton Market, Sir Theyagaraya Road, 36th Division.
- 8. Razaack Market, Bazaar Road, 47th Division.

Private Markets:—There were 43 private markets in the City. These markets were periodically inspected by the divisional sanitary staff to ensure their sanitary up keep and to prevent the sale of food stuffs unfit for human consumption. Before issuing the annual licences to the owners of various markets, they were required to attend the annual repairs, lime washing and repainting works. They were also required to provide indication boards to the fish stalls and make special arrangements for keeping these stalls clean and hygienic. This was done in view of the

attitude of the Government Fisheries Department for giving an impetus to the sale of fish in the City.

The private mutton stalls and pork stalls were periodically inspected to enforce their proper maintenance and to prevent the sale of unauthorised meat.

S.No.	Div. No.	Location
1	1	New Washermanpet Market, 322, T. H. Road, New Washermanpet.
2	1	Tondiarpet Market, Thandavaraya Gramani Street.
3	2	Kalmandapam Market, 12, Kalmandapam Road.
4	3	Royapuram Market, 16, Mannarswamy Koil Street.
5	4	Old Washermanpet Market, 5/6, Venkatakrishnan Street.
6	4	Narasier Market, 82/82, Narasier Street.
7	6	M. G. Market, 15, Erukancheri High Road.
8	6	Selva Vinayagar Market, 5, Selva Vinayagar Koil Street.
9	7	Kondithope Market, 32, Peddu Naicken Street.
10	9	Seven Wells Market, 111, Govindappa Naicken Street.
11	11	McDonald Market, 67, Sengalaneer Pillaiyar Koil Street.
12	11	Mallaya Market, 87, Mannady Street.
13	12	Olakkadai Market, 180, Angappa Naicken Street.
14	14	Kothawal Market (whole-sale), 1, Adiappa Naicken Street.
15	15	Chengam Bazaar Market, 83/84, Nattu Pillaiyar Koil Street.
16	17-A	Choolai Market, 37, Vijaya Vigneswarar Koil Street.
17	18	Demellows Road Market, 133, Demellows Road, Pulianthope.
18	20-A	Abdul Khadar Market, 17, Madhavaram High Road.
19	20-B	V. B. Chetty Market, 47, Market Street.
20	20-В	Jamalio Market, 115, Market Street.
21	22-В	Private Market, Aminjikarai, 68, P. H. Road.
22	24	Kosapet Market, 3, Pudu Street.
23	25	Rajarathnam Market, 27, Purasawakkam High Road.
24	26	Ellamman Koil Devasthanam Market, Veeraswamy Pillai Street.
25	28	K. A. C. Charities Market, 314, Wall Tax Road.
26	30	Chintadripet Private Market, 17, Arunachala Naicken Street.

S.No.	Div. No.	Location - Location				
27	31	Connemara Market, 30, Harris Road.				
28	32	Egmore Market, 92, Egmore High Road.				
29	33	Thousand Lights Market, 41/46, Mount Road.				
30	34	Kodambakkam Market, 54, Kodambakkam High Road.				
31	35-A	Market at 140, Arcot Road, Kodambakkam.				
32	39	Moosa Sait Market, 90, Venkatesa Naicken Street.				
33	40	New Janda Market, 291, Triplicane High Road.				
34	40	Shaik Adam Market, 730, Triplicane High Road.				
35	42	Zam Bazaar Market, 421, Pycrofts Road.				
36	43	Sultan Market, Royapettah High Road.				
37	43	Meersahibpet Market, Venkatachala Mudali Street.				
38	44	Market at 80, Bazaar Road.				
39	44	Market at 75, Royapettah High Road.				
40	46	Sri Balasubramaniaswamy and Alaiamman Devasthanam Market, 11-A, Eldams Road.				
41	46-B	Azeez Market, 70, Mount Road, Teynampet.				
42	47-B	Karaneeswarar Koil Market, 6/7, Jones Road, Saidapet.				
43	50-A	Mandavalli Market, 14/65, Mandavalli Street.				

Destruction of the unwholesome food stuffs:—The divisional staff during their inspection seized unwholesome and noxious food stuffs and had them destroyed to prevent their consumption by the people in the City. This consisted of rotten vegetables, decayed fruits, stale edibles and food rendered unfit for human consumption by dust and flies setting on them. The raided food stuffs were sprinkled with disinfectants and buried in the dumping grounds.

Action was also taken to prevent unauthorised vending of food stuffs by prosecuting the offenders in this behalf.

Slaughter Houses

The Corporation is having 5 Slaughter Houses—2 for sheep and goats (one at Perambur and the other at Saidapet), one Cattle Slaughter House at Perambur, one Pig Slaughter House at Perambur and another at Saidapet.

For the Slaughter Houses there is a Superintendent and Asst. Superintendent and a Sanitary Inspector. The meat inspection is done by duly qualified Veterinary Surgeons. The Ante-and Post-Mortem examinations are done and the carcasses are stamped with indetrable ink before passing out as fit for human consumption.

The out turn of work in the Slaughter Houses for the year 1957 was as follows:—

Kinds of animals slaughtered	No. of animals brought for slaught tering	No. condemned after antemortem examination	No. Actually slaugh- tered.	No. of caror port carcasses demned Post-Moexamin Carcasses whole	ion of s con- lafter ortem	No. of organs condemned
Sheep and goats	471,847	1,462	470,385	6	1	8,935
Cattle	26,904	Nil	26,904	. 4	455	8,295
Pigs	858	Nil	858	2	Nil	437

The carcasses are transported in motor vans from the Slaughter Houses to the Markets, and the revenue from the transport of the carcasses amounted to Rs. 4,629.96 nP.

The meat inspection certificate fee collected during the year for the export of beef was Rs. 3,645.

To eradicate pig nuisance in the City, raids were conducted to catch stray pigs. During the year, 334 stray pigs were caught from various parts of the City and Rs. 830.58 nP. was realised from the owners by way of licence fees, pig catching reward amounts and feeding charges, while releasing the pigs.

Facilities have been afforded in the Slaughter Houses for post graduate students of the Madras Veterinary College for studies connected with parasitology and meat inspection work. Regional Sterility Officer and his assistants have also been given the necessary facilities for the study of sterility in animals by way of ante-mortem and post-mortem examination of animals brought for slaughter.

Students of the various other educational institutions in the City and in the mofussil visiting the Slaughter Houses were given all facilities to study the work of the Slaughter Houses and the Meat Inspection.

Valuable and rare specimens have been preserved as exhibits for students from various Medical and Veterinary Institutions visiting the Slaughter Houses.

Meat Inspection:—

1.	No. of Private Mutton Stalls at the beginning	of	
	the year	•••	133
2.	No. of Mutton Stalls opened during the year	•••	7
3.	No. of Beef Stalls at the beginning of the year	• • •	44
4.	No. of Beef Stalls opened during the year	•••	1
5.	No. of Pork Stalls at the beginning of the year	• • •	Nil
6.	No. of Pork Stalls opened during the year	•••	Nil
7.	No. of unstamped carcasses seized	• • •	53
8.	No. of cases of illicit slaughter detected	•••	15

2. ENVIRONMENTAL SANITATION

Housin	g :	- · · · · · · · · · · · · · · · · · · ·	
	1.	No. of houses other than huts in the City	1,02,185
34	2.	No. of houses used for dwelling purposes	88,848
•	3.	No. of houses used for purposes other than dwelling	13,337
	4.	No. of huts	46,902
	5.	No. of building applications received from the Works Department	519
	6.	No. recommended for sanction in item No. 5	434
	7.	No. of building applications recommended for refusal for sanitary reasons	90
	8.	No. of tenements built prior to 1-1-1957	110
.,	9.	No. of tenements built prior to 1-1-1957 and brought under occupation in 1957	43
	10.	No. of tenements built and brought under occupation in 1957	120
	11.	No. of tenements under construction at the end of the year 1957	26
· <u>} </u>			
House I	Insped	ction:—	
	1.	No of houses inspected as a routine measure	26,548
	2.	No. of houses inspected on complaints made	1,468
	3.	Average No. of houses inspected per mensem	,2,334.7
•	4.	No. of houses found untenanted	161
	5.	No. of houses found defective for want of protected water supply	893
	6.	No. of houses found defective for want of ventilation	1,063
	7.	No. of houses found defective for want of proper drainage arrangement	1,441
	8.	No. of houses found defective otherwise	2,664
	9.	No. of notices issued for rectification of defects	4,059
	10.	No. prosecuted for non-compliance	498
	11.	No. of houses repaired as a result of action taken	3,623
T mt ·			
Lairine		mmodation :—	
		No. of houses found without any latrine	1629
	•	No. of notices issued in respect of item No. 1	339
	3.	No. of houses provided with latrine accommodation as the result of action taken	223

	4.	No. of houses found defective for want of adequate latrine accommodation	500
			533
	5.	No. of notices issued in respect of item No. 4	435
	6.	No. of houses provided with additional latrine	
		accommodation as a result of action taken	284
	7.	No. of houses in sewered areas without F.O.Ls	1,521
	8.	No. of notices issued for convention of masonary	
		latrines into F.O.Ls.	189
	9.	the masonary lattines	
		were converted into F.O.Ls. as a result of	*
		action taken	107
Cess Po	ols :	41 gare - 10 a - 10 a - 10 a	
Cess Po			
Cess Po			3,568
Cess Po	1.		3,568 ~2,761
Cess Po	1. 2.	No. of houses with cess pools	18
	1. 2. 3.	No. of houses with cess pools No. of houses without cess pools	^2,761
	1. 2. 3.	No. of houses with cess pools No. of houses without cess pools No. of notices issued in respect of item No. 2 No. of houses provided with cess pools as a result	2,761 113
AL I	 1. 2. 3. 4. 5. 	No. of houses with cess pools No. of houses without cess pools No. of notices issued in respect of item No. 2 No. of houses provided with cess pools as a result of action taken No. of notices issued in respect of inadequate	72,761 113 113

Home for the Homeless:—The Madras City Corporation is at present maintaining five houses for the homeless, at the various parts of the City as mentioned below. In these houses, the homeless people coming to the City are temporarily accommodated for a period of stay not exceeding two months; but in practice considerable difficulty was experienced in evicting the inmates after the stipulated period of their temporary stay in these houses.

S. No.	Dn. No.	Location	Accommodation Available for persons	Strength persons
1	11	Old Jail Street	90	. 90
2	16	Wall Tax Road	100	100
3	26	Behind the Zoo	160	160
4	29	Ritchie Street	. 175	175
5	43	Gajapathy Lala Street	85	85

Dhobikhanas

The Corporation maintained the following Dhobikhanas in the various parts of the City:

S. No.	Div. No.	Location		No. of strength
1	1	Butchammal St. New Washermanpet	•••	40
2	3	Robinson Park	•••	62
3	21	Ayanavaram	•••	10
4	24	Conron Smith Nagar	•••	52
5	33	McNichols Road, Chetpet	•••	133
6	34	Pillaiyar Koil Street	•••	36
7	44	Appaswamy Koil Street	•••	14

Improvements were carried out to the Dhobikhanas including lime washing and minor repairs.

Water Supply.—The Water Works at Kilpauk and Infilteration Gallery Wells at Sembiam and Saidapet continued to be the main source of protected water supply to the City. Report of the Water Analyst in the quality of water supplied is appended to this report.

Slum dwellers in the extended areas had their supply of protected water through lorries maintained by the Water Works Department.

Public fountains:

Public fountains	•••	5,253
Bathing fountains	•••	150
Cattle troughs	•••	51
Over head tanks including masonary tan	ks	69

Swimming Pools.—The Corporation maintained 2 Swimming Baths—one at Peoples Park, adjacent to My Lady's Garden and another at the Marina Beach. Instructors are posted there for coaching up in swimming.

Conservancy.—Collection and disposal of the Rubbish, Sewage and Conservancy are under the Conservancy Department.

Sewers and F.O.Ls.—At the beginning of the year the City was sewered to a length of 431.05 miles. During the year, 13.20 miles of sewers were laid in the areas detailed as follows:

S. No.	Name of the	Area	Length of Sewers laid (in feet)
1	Tondiarpet	30 1	4,642
2	Kodungaiyur		388
, 3	Perambur	7 (7,095
4	Ekangipuram		10,342
5	Purasawakkam	0 1 V 10	17,557
6	Chetpet		859
7	Shenoy Nagar		12,886
8	Greames Road	•••	2,243
9	Ice House	•••	3,120
10	North Mylapore	•••	2,002
11	South Mylapore	•••	1,582
12	T. Nagar	(0.0)	5,377
13	Adayar	•••	1,615
•		Total	69,708 ft. or 13:20 mile

Health Education.—Inculcation of Public Health ideas was carried on by talks and film shows by the Health Staff. The subjects dealt with in the course of the propaganda were on diseases like Malaria, Small Pox, Cholera, Typhoid, Tuberculosis, Leprosy and general subjects like food, nutrition, environmental sanitation and personal and domestic hygiene.

3. INDUSTRIAL SANITATION—TRADES—LICENCING Etc.,

1. Offensive Trades:

1.	No. of renewal applications received for old offensive trades (Sec. 287)	9,763
2.	No. of applications recommended	8,230
	No. of applications refused	1,533
	No. of applications pending	122
5.	No. of new applications received for offen-	1,255
	sive trades (Sec. 287)	
6.	No. of new applications recommended	581

7.	No. refused for sanitary reasons other than the prohibition under Public Health Act.	2 61
8.	No. refused in view of the prohibition under the Public Health Act.	596
9.	No. of appeals preferred by the parties to the Standing Committee.	268
10.	(a) No. of appeals allowed by the S.C	186
	(b) No. of appeals rejected by the S.C	82
11.	No. of references made to the Council	146
12.	No. of cases in which the Council reversed	24
	the decision of the Standing Committee.	
13.	No. of cases in which the Council upheld	124
192.11	the decision of the S.C.	_
14.	No. in which the Council's decision was given effect to.	5
15.	Nos. in which the Government instructions	136
	or orders were sought in respect of Council's decisions.	
16.	Nos. in which the Government orders were	42
	received.	
. Miscella	aneous:	
1.	No. of Laundries	755
2.	No. of Hair Dressing Saloons	1,135
3.	No. of Sweet Meat shops	164
_ 4.	No. of Firewood Depots	497
5.	No. of Charcoal Depots	283
6.	No. of Charcoal and Firewood Depots	422
7.	No. of Aerated Water Factories	65

4. SCHOOL SANITATION

There were 293 Corporation Schools in the City and the average attendance in these schools were 12,511 boys and 16,397 girls. Defects in the School Buildings with particular reference to Latrines, Play Grounds facilities and Water Supply were noticed and necessary steps were taken for remedying them.

During the year 1957-58 four Medical Inspectors and three Medical Inspectresses continued to attend to the medical inspection of children in the Corporation Schools. Up to December 1957, the medical inspection was not in any way regular as almost all the Medical Inspectors were absorbed for epidemic work. Hence they had to work strenously as the compliment of the staff was not sufficient to cope up with the increase in work. The need for additional staff was keenly felt and a proposal to appoint honorary staff or regular Medical Inspectors is under consideration.

Out of 293 schools in the City, only 97 schools were visited by the medical inspection staff during the year. There were 13,950 boys and 18,089 girls in the 97 schools examined. The average attendance in the schools was 12,511 boys and 16,397 girls. 11,511 boys and 13,544 girls were examined during the year, the total being 25,055.

Out of these 3,559 boys and 3,596 girls were entrants while 7,952 boys and 7,948 girls were regulars. 3,900 boys i.e., 33.87% and 5,968 girls i.e., 44.063% were defective and needed treatment.

Personal Hygiene:—607 boys (5.2557%) and 96 girls (0.7088%) were dirty in their person and clothing. Instructions on personal hygiene was imparted to them. Personal hygiene was also taught in the classes on the advice of the medical inspection staff.

Mal-Nutrition:—1,161 boys (10.8601%) and 1,425 girls (10.53021%) were under-nourished. 11.0383% and 12.219% respectively being percentages for the previous year. Shark Liver Oil and Calcium Lactate were given to them. 2,968 children were given Shark Liver Oil and Calcium Lactate for Mal-nutrition and Rickety Chest. 910 children were given Yeast Tablets for stomatitis of nutritional origin and other form of Vitamin-B deficiency. 67,336 Children were given reconstituted milk during the year.

Minor Ailments:—229 boys (2.755%) and 125 boys (0.922%) had dental and oral complaints and 1,431 had stomatitis and were treated with benefit. 88 children had their earies tooth extracted. 1,209 children had enlarged Tonsils and 63 children had their tonsils removed by operation. Others underwent treatment at the school. 17 children with defective vision had their vision corrected by glasses. 194 having diseases of the ear were treated at the school. 3 boys and 7 girls were defective in hearing and were provided with seats near the teachers so as to be within the range of their hearing.

Circulatory and Respiratory Diseases:—46 boys (0.4000%) and 339 girls (2.5086%) had defects relating to heart and blood. 305 children having anaemia improved by treatment. 5 children had enlarged spleen due to Malaria and were suitably treated.

Diseases of Bones and Joints:—490 children had deformities of chest due to rickets in childhood and were suitably treated.

Infectious and Contagious Diseases:—606 boys (5·2722%) and 1,078 girls (7·9772%) had contagious and infectious diseases. The coresponding percentages for the previous year being 5·9229% and 9·1788% respectively. 130 children having signs and symptoms of Hanson disease in early stages were treated at the Corporation Skin and Leprosy Clinics. Good improvements were noticed in them.

General Preventive Work:—The Medical Inspection staff revaccinated 4,228 against Small-pox and inoculated 10,000 against Cholera during the time of epidemic and during their respective inspection in addition to the work done by the divisional vaccination staff.

Other Diseases or Defetcs:—666 children were having defects not maintained under the above heads. They were suitably treated.

Medical Treatment:—2,633 boys and 4,283 girls were treated at the school. 229 boys and 614 girls were treated at the Corporation Dispensaries for ailments that could not be attended to at the school. 950 children were sent to various Government Hospitals for receiving attention to some of the more serious ailments. 100 children were sent to Government Opthalmic Hospital.

Re-Inspection:—235 re-visits to the schools were paid after the routine inspection for treatment of the defects. 15,725 boys and girls were re-examined during these visits.

Co-operation of parents and teachers:—791 parents of children were present in the school at the inspection and treatment of their children. Adequate arrangements were made at the premises for the treatment of the ailing and good results were obtained.

School Sanitation:—Defects in the school buildings with particular reference to Latrines, Playground facilities and water supply were noticed and suggestions made to the respective departments for remedying them.

Mid-Day Meals:—26,784 children in 293 schools situated in poor localities were provided with mid-day meals on all five working days. The Medical Inspecters supervised the arrangements made for the distribution of food. In addition, to this, in 13 feeder schools i.e., nursery schools, children were given congee (fried rice powder mixed with milk and brown sugar) in the mornings.

To relieve the monotony of daily rice and sambar (thanks to the inspiring guidance of our ever energetic Worshipful Mayor Srimathi, Tara Cherian) the menu has been changed as detailed below, which, while slightly increasing the nutritional value, has not resulted in any increase in cost.

- 1. Mondays: Rice and sambar as is being done now.
- 2. Tuesdays: Tamarind bath and vegetable koottu.
- 3. Wednesdays: Curd bath and pickles or pachadi.
- 4. Thursdays: Sambar and rice.
- 5. Fridays: (For Hindu & Christian children) Rice or wheat kadambam (wheat to be broken, not fine and prepared like uppumavu with five kinds of vegetables.)
- 6. Saturdays: (For Muslim Children) Do.

Further, the Worshipful Mayor is finding out methods for quicker and cheaper cooking so that fuel consumption could be economised.

Milk:—67,336 children were given 101,720 lbs. of skimmed milk being received from various voluntary organisations during the school year. Our most sincere thanks are due to such organisations.

Health Education: 122 lectures and 158 talks were arranged in the schools for the benefit of the children. The total attendance was 8,646.

Medical Examination of Corporation Workers:—916 male and 95 female workers of all the departments were examined for physical fitness or inhabilidation during the year and duly certified.

5. PORT SANITATION

- 1. 498 vessels with 29,064 crew and 31,786 passengers were inspected on arrival during the year. 7 cases of Chicken-pox, 1 case of Small-pox and 1 case of suspected Cholera were landed ex. 8 vessels on arrival and suitable measures were taken to prevent the spread of these diseases. 562 cases of Influenza occured on 19 vessels, both on arrival and while in Port were either removed to the Isolation Camp or the Infectious Diseases Hospital or were kept isolated on board the ships. Necessary precautionary methods were adopted against the spread of the disease.
- 2. Out of 498 vessels leaving this port during the year under review only 346 vessels with 20,829 crew and 28,860 passengers were inspected at the time of departure for foreign ports. 64 cases of fever, 1 case of Syphillis, 2 cases of Measles, 2 cases of Chiken-pox and 1 case of Small Pox were detained from embarkation.
- 3. The personal effects of the infected crew and passengers and their contacts as well as 22 cases of imported second-hand clothing intended for free distribution were disinfected before release.
- 4. Bedding, clothing, etc., of 1,196 new crew were inspected and disinfected before they were taken on board.
- 5. Seamen's provisions of 71 vessels were inspected and 125 tins of ghee inspected and sealed before being taken on board.
- 6. 46 vessels were examined with regard to the Medical Stores kept on board. They were maintained according to the prescribed scales and wherever necessary suggestions were made to make good the shortage, if any.
- 7. Imported food stuffs were inspected at the requests of the Port Trust authorities and certain firms of importers.
- 8. During the year, 605 lots of food stuffs including milk powder, barley, etc., and 1 case of tobacco were inspected of which only 73 lots of food stuffs were found fit for human consumption.
- 9. 204 seamen trainees, seamen for continuous certificates of discharge and other candidates for employment as seamen were medically examined and certificates of fitness or otherwise issued.
- 10. On receipt of radio messages from the Masters of 8 vessels at sea seeking medical advice in connection with sickness on board the vessel, necessary advices were sent immediately to the Masters concerned.
- 11. Sanitation of the Port area was looked after by the Madras Port Trust and was maintained satisfactorily. Storage tanks of water supply of the port area were cleaned regularly and water from these sources was analyse at regular intervals. Measures were taken to rectify the defects when noticed.
- 12. 29 Deratisation Exemption Certificates and 22 Permits were issued at this Port.

Flood And Five Relief

CONTROL TO STORY OF THE TRANSPORT OF SHAPE WITH A PERSON AREA

The state of the s

the state of the s

FLOOD RELIEF

On account of the heavy rain during the month of November 1957, almost all the slums in the low-level areas of the City were affected and more than four thousand people were rendered homeless and had to be accommodated temporarily in the Corporation Schools in the respective localities. This department also rose to the occasion to feed those homeless people between the 5th and 9th of November 1957, when all the three Midday Meals Centres worked day and night to serve 17,990 meals at an extra cost of Rs. 2,904|53, which was met from the Mayor's Flood Relief Fund.

FIRE RELIEF

There was one grave out break of fire on the night of 6th April 1957 at Elephant Gate Pallamcheri. 1,500 people were rendered homeless on this occasion and they were all fed for four days by this department at an extra cost of Rs. 343/25, which was also met from the Mayor's Fire Relief Fund.

MEDICAL RELIEF

00

HOSPITALS

The Corporation maintained, as in the previous years, one Tuberculosis Hospital at Otteri and one Infectious Diseases Hospital at Tondiarpet. The Tuberculosis Hospital continued to receive cases diagnosed at the Corporation Clinics and other institutions for institutional treatment. The Infectious Diseases Hospital continued to attend to the treatment of infectious cases occuring in the City as well as in the adjoining district of Chinglepet. The Tuberculosis Hospital was since handed over to the Government from the afternoon of 31st March, 1958.

Infectious Diseases Hospital, Tondiarpet

The Infectious Diseases Hospital at Tondiarpet, only of its kind in the City, continued to function satisfactorily cases of infectious diseases both from the City and from the suburb, underwent treatment in the Hospital. The year under review had an epidemic of Influenza and Cholera. There was also a considerable increase in the number of Small-pox and Chicken-pox cases. To meet the growing demand to accommodate patients during epidemics temporary sheds were also constructed. There has been a chain of infectious diseases owing to the increase in the City's population. Further, a good number of cases of infectious diseases are sent to this Hospital for treatment from the suburbs. In view of all this, it is very necessary to increase the bed strength in the Hospital as a permanent measure at least by double the present bed strength and also to increase the present staff of the Hospital in all categories.

No. of new cases treated	•••	12,731
Total No. of cases treated	•••	12,879
No. of operations (saline transfusions performed)	•••	3,785
No. of Influenza cases treated		2,722

Sri Thiruvoteeswarar Tuberculosis Hospital Brief Report.

Sri Thiruvoteeswarar Tuberculosis Hospital, Konnur High Road, Otteri, Madras-12, and its out-patient Department. The Tuberculosis Clinic, in Pulianthope High Road, Madras-12 are the two main institutions maintained by the Corporation of Madras for the treatment of Pulmonary Tuberculosis and are intended to serve primarily the citizens of Madras. This is the 10th year of the working of the Hospital and it continued to progress in all directions. The orginal staff of a Medical Superintendent, and an Assistant Medical Officer (both specialised in Tuberculosis) continued to be in-charge of the Hospital with a nursing staff of one Ward Sister and 8 Nurses.

The Hospital has now 78 beds (54 plus 2 Emergency indigent 22 paying beds 6'A' Class (women 4 and men 2) and 16 'B' Class beds (8 Women and 8 men). The Hospital is well equipped with a Laboratory, Operation Theatre, X-ray plant and other clinical appurtenances to treat the patients in modern accepted methods of treatment. The Hospitalisation, diet, and X-rays are free of charge for indigent patients in the General Wards whose monthly income is below Rs. 100/-. Stoppages payable by the in-patients of the Hospital as approved by the Council on 21-2-56 are as furnished overleaf.

General Ward.

- (a) Free treatment and diet for patients with income below Rs. 100/-.
- (b) Patients with a total monthly income of Rs. 100/- to Rs. 150/- should each pay stoppage charges at Re. 1/- per diam.
- (c) Patients with a total monthly income of Rs. 151/- to 199/-should each pay stoppage charges at Rs. 1/50 nP. per diam.
- (d) Patients with a total monthly income of Rs. 200/- and above should each pay stoppage charges at Rs. 2/- per diam.

Special Ward 'A' Class.

- (a) Stoppage charges are payable at Rs. 3/- per diam.
- (b) Diet charges are also payable at Rs. 2/- per diam only for those taking hospital diets.

B' Class.

- (a) Stoppage charges are payable at Re. 1/- per diam.
- (b) Diet charges are also payable at Rs. 2/- per diam only for those taking hospital diets.

The total income derived from stoppages and diet charges collected from the paying patients during the year 1957:

Collection from Special Ward patients Rs. 19,111/-General ward paying patients Rs. 850/-.

There is an Electric Lift installed at the Hospital for the convenience of the patients in the 1st and 2nd floor and it is in use since September 1955.

Number of Government Servants and their dependants admitted during the year 1957 are furnished below:—

- (a) Central Government Servants and dependants ... 7
- (b) Provincial Government Servants and dependants ... 4
- (c) Corporation Servants and dependants ... 45

During the year, 19 patients were admitted as emergency cases with symptoms of Haemoptysis and or Sponteneous Pneumothorax.

More than 40% of the cases admitted during the year were advanced and were taken into Hospital on Public Health grounds for isolation.

The year opened with 72 patients left over from the previous year. There were 213 new admissions thus making a total of 285 patients treated for the year. The total number of discharges including 5 deaths during the year was 213 leaving 70 patients at the end of the year, 52 indigent patients and 8 Special Ward patients. The particulars of the 213 admissions are as follows:

Daily average number of patients treated during the year:

53·15	Males	37.38
16.83	Females	32.60
69.98	1	69:98
	16.83	16.83 Females

Hindus 183

45 to 64 years

65 and above

(Sex Distribution)

Males 113 Females 100 Total 213

Communal Distribution

Muslims 13

Christians 17

30

213

100

10 01 0 0	Age Distri	bution	t
Age Groups	Males	Females	Total
0 to 4 years	- 10 .01	• • • • • • • • • • • • • • • • • • •	•••
5 to 14 years	1	3	4
15 to 24 years	38	32	70
25 to 44 years	52	56	108

21

1

113

Classification of discharged cases

Classification of the stage of disease and results adopted here are based on the recommendation of the Tuberculosis Association of India. Out of the 213 (including 5 deaths) patients discharged during the year, 212 were tuberculosis cases and 1 was non-tuberculous case i.e., 1 lung abcess.

1. Type and stage of disease of Tuberculous cases-

Pulmonary		11.50	Stage		Total
Tuberculosis		I	II	III	lotai
(a)	•••	12	14	44	70
(b)	•••	6	16	35	57
(c)	•••	4	7	74	85
		-			
		22	37	153	212
		W	_		

Out of 212 Tuberculosis cases discharged during the year, 31 patients stayed for periods less than one month. These 31 cases are therefore excluded from the results. Thus it will be seen that 70.4% of the admissions were in the advanced or III stage of the disease. 212 discharges shown above included 5 deaths of which 2 deaths only were taken into statistics and 3 deaths are out of statistics as the period of the stay of these 3 cases was less than a month. Out of statistics 31 cases and 1 Non-Tuberculous cases were excluded from the total discharges and the results of treatment of 181 cases are furnished overleaf.

2. Results of Treatment: (181 Tuberculosis cases considered for statistics).

					tages					
		I	17	303	E II		1 I	II		Total
	Ā	В	\overline{C}	Ā	В	<u> </u>	Ā	В	C	
Quiscent	1. 11	1	•••	•••	· *2	•••	1	•••		5
Much improved	8	4	4	8	10	, 6	24	11	14	89
Improved	2	•••	•••	3	2	•••	12	9	13	41
Stationary	1	• • •	•••	1	1	•••	4	8	28	43
Worse	•••	•	•••	•••	•••	• • •	•••	17. 10	1	1
Died	•••	•••	•••	•••	•••	•••	•••	·· i	1	2
Ð		~	_	_		V	_	·	· — ·	<u> </u>
	12	5	4	12	15	6	41	29	57	181
			-			10				

Out of the 181 cases discharged, 135 cases or 73.5% had positive result of treatment. Large majority of cases i.e., over 127 out of 181, were in the advanced or III stage of the disease. Out of 33 cases in Stage II, 31 cases showed positive result of treatment i.e., over 94% had positive results and 16 cases in Stage I, 21 showed positive result of treatment i.e., 90.5% showed positive result of treatment.

Surgical Treatment

• • • • • • • • • • • • • • • • • • • •		
Total No. of patients who received A. P. treatment		21
Total No. of A.P. refills given to in-patients and out-patients.	h . contr	. 2
2. Aspiration of Fluids Done for 7 pa	atients 10	times
3. Aspiration of Air Done for 2 pa	atients 4	times
4. No. of cases in which Pneumperitoneum was given 55 patients received.		refills
5. No. of cases in which initial Pneumopritoneum was given.	L	20
	,	
Medical Treatment		
Antibiotics:—		
1. Streptomycin No. of cases treated	•••	115
2. Calcium salt of Para Amino Salicylic Acid Treatment	···)	184
3. Isonicotinic Acid Hydrazide	****	239
X-Ray Work:—		

No. of Fluoroscopic Examinations done

X-ray Skiagrams taken in the Hospital

1.

2.

1812

win the authority

Tubercle Bacilli:-

110 patients had sputum positive on admission to T.T. Hospital out of 213 patients discharged. Of the 213 patients on discharge 13 were negative by smear, 61 negative by concentration and 86 negative by Culture and 43 remained positive to Tubercle Bacilli i.e., 75.1% of the discharged patients had negative sputum and were non-infectious.

Total No. of Sputum san Laboratory, Corporation of Madr		ure to I	Pathological 108
C.S.F.		•••	
Widal and Blood Culture		•••	
Plural Fluid		•••	
Blood smear sent to Malari examination	a Laboratory for	- •••	15
Laboratory Work:—		*	
1. Motion Routine Examin	nations	•••	197
2. Urine Examinations—I	Routine	•••	224
	Albumin	• • •	2 24
S	Sugar—qualitative	•••	1117
S	Sugar—quantitative	•••	510
3. Sputum for A. F. B.	Smear		2862
or Spaceting and a second	Concentration	•••	657
	*Culture	•••	108
4 Disal Enamintation : I	Differential Counts		1095
4. Blood Examintation: I	B.S.R.	•••	1068
	For M.P.	•••	33
	Index	•••	1068
	I 10 90	1711 1	, f.
Complications:—			2
1. Effusion on A.P. side	· Jan - mein	•••	2.
2. Haemoptysis		•••	8
3. Coloured Sputum		•••	4
4. Diabetes		•••	6
5. Tracheo Bronchitis		•••	1-
6. Laryngitis		••••	4
7. Perianal Tuberculosi	s ·	••• (1
8. Spontaneous Pneumo	othorax	•••	3
9. Hansen		•••	2 1
10. Abdominal Tub. Peri	tonitis	• • •	1
11. Miliary Tuberculosis			1
12. Br. Asthma		•••	1
13. Malaria		•••	1
14. Scabies		•••	3
15. Anaemia		•••	3
16. Hernia		•••	1

^{* (}at Corporation Pathological Laboratory)

17.	Deluxonal Insanity 12 12 12 12 12 12 12 12 12 12 12 12 12
18.	Pneumonitis 1
19.	Pyelitis 1
20.	Epilepsy 1
21.	Hystena 1
22.	Ameorrhoea 1
23.	Pregnancy 3

The following visitors visited the Hospital during the course of the year and made appreciative references to the work done in the institution in the remarks recorded in the 'Visitors' Diary during the year 1957.

Ŧ.	part gual tari Nari Amerika seri	Visited on
	Health Committee members of the Corporation of Madras.	10—1—1957
2.	Worshipful Mayor Sri K. N. Sriniva Corporation of Madras.	asan, 19—1—1957
3.	Dr. T. S. Natesan, Asst. Director of Medical Service	es. 11—12—57

STATEMENT B

Showing medical personnel in Sri Thiruvoteeswarar Tuberculosis Hospital, Corporation of Madras, during the year 1957.

0.01	(124)	M	ale	Female	•		
1. 0	Medical Officer (Civil Surgrade)	geon	: 1	rjetini.	·	ė] .i-	
2.	Assistant Surgeons (services salaried)		1	•••			
3.	Assistant Surgeons, Class (service salaried)	II :	••	• • •		(-10, P)	10/7
4.	Medical Officers of other category	•	••			*	
5.	Nurses	•	••= 11.		(1	Ward	sister
6.	Midwives		••			8 Nur	ses)
7.	Female Ward Attendants		••	4			
8.	Nursing Orderlies: i.e., Male Ward Attend	ants	6 !!				
9.	Technician II Grade	ing the plant of	1	OH THE		4	
10.	*		_	***		."	
11.			_	•••			
12.	Other Grade (IV) Staff:—		111				
4	Sweepers		3	3			
٠	Scavengers		3	_	1179		
~લ	Cook Kitchen Thozhilalies		1				
	Gardeners		2 2		. 67.17.		
į	Dhóbies	,	2	•••	OFW		
	Barber	(1991)	1		1		

51
Male Femals
13. Electrician 1
Electrician—Lascar 1
Electric Lift Attenders 2
STATEMENT 'C'
Showing the number of in-door patients treated stream
during the year 1957.
ict Madras.
atlemod admi
e of Dispensary Sri Thiruvoteeswarar Tuberclosis Hos
pital Corporation of Madras, Konnu
High Road, Madras. 12. Horson (1975)
I treated during the year Men 153
Women 132

is Hos-Konnur

. 2

15:17:15 11:11.

Results of treatment of the discharged in the basic

Distri

Name

Total

cases

Number cured: ... 5 in a rissinic Quiescent 3 Much improved ... Improved Stationary. 43 Worse 1

Died Others:

Non-Tuberculous

Ratio of death per cent to the total treated... 1.8% Number of beds available

> 1 - 1/1 ... · 41 - 1 ... Men Women ... 37

Daily Average number * Average duration of illness Men ... 37.38 ... 88.6 Men ... 90.8 Women ... 32.60 Women **269.98**

... With wall of the

^{*} Average duration is obtained by dividing the total in-patient attendances in the year by the total number of in-patients.

STATEMENT 'D' (NEW FORM)

Showing the number of beds and Geographical distribution of Tuberculosis cases (infectious and other diseases treated) during the year 1957.

during	the year 1957.
(i) Name of the Medical Institution.	Sri Thiruvoteeswarar Tuberculosis Hospital, Corporation of Madras, Konnut High Road, Madras-12.
(ii) Number of beds for males	41
(iii) Number of beds for females	37
(iv) Number of patients treated—	- Males 153
Indoor	Females 132
(v) Tuberculosis—	
1. Respiratory .	212 (inclusive of 5 deaths)
8. Intestines, Peritoneum an Mesentric Glands	1
44. Malaria	1
5. Others:—	
Laryngeal	33
Glandular, Urogenita	al 6
Anal, etc,,	1.
73. Diabetis Mellitus	6 many in the state of the
81. Anaemias	î 3 · · · · · · ·
113. Lung abcess	1
109. Pneumonitis	1
N.B.—Numbers 3 to 81 complications or in association wi	items mentioned are met with either as ith Pulmonary Tuberculosis.
STAT	EMENT 'DT'
Statement showing pat	ients treated for Tuberculosis the year 1957.
1. Tuberculosis of respiratory sys	
New admissions during the	year 212
Of these fresh cases	
Of these fresh cases	133

Isechio Rectal

Trachea Bronchial

Laryngeal

Tuberculosis other forms:—1

(i) Of glands (lymphatic)

(iv) Abdominal (a) Intestinal

(vii) Others:—

2.

^{*} All the other forms of Tuberculosis under (2) are found only as complications to Pulmonary Tuberculosis.

STATEMENT D-1

Showing the age and sex distribution of in-patients of Sri Thiruvoteeswarar Hospital, Corporation of Madras during the year 1957.

Age Group		Pulmonary Tuberculosis					
rigo Group		Males	Females	Total			
0 to 1	• • •	•••	•••	•••			
1 to 4	•••	•••	•••	•••			
5 to 14	• • •	2	3	5			
15 to 24	• • •	50	41	91			
25 to 44	•••	72	74	146			
45 to 64		27	13	40			
65 and abo	ve	1	•••	1			
		152	131	283			

N.B.—2 Non-Tuberculosis admitted for observation were not included in this.

STATEMENT 'E' (New Form)

Showing the details of Surgical Treatment done during the year 1957.

1.	Nature of operations:—		
	Artificial Pneumothorax Treatment Total No. of A. P. Refills given	•••	2
	No. of patients who received Bilateral A. P.S.		
	Aspiration of Air done	•••	4 Times
	Aspiration of Fluid done	•••	10 Times
2.	Operations on the abdomen: Pneumoperitoneum: No. of patients who received initial P. P. Total No. of refills done		20 922
Re	sults of Treating of discharged cases:—		
	Quiescent	•••	5
	No. of much improved (relieved) and discharged	•••	89
			4.4

41

44

2

Deaths

No. of improved and discharged

Discharged otherwise

2. DISPENSARIES

The year 1957 opened with 40 general dispensaries, 8 clinics and 2 major Hospitals. During the course of the year 3 more general dispensaries of Allopathic system were opened at Sanjivirayanpet (4th division) Basin Bridge (7th division) and Sathanipet, Maduvankarai, Guindy (49th division).

Out of the 43 general dispensaries 35 are of the Allopathic system and 8 of the Indigenous system. Of the 8 clinics two are for Leprosy, one for Veneral Diseases and the others for Tuberculosis. Besides, the Corporation Tuberculosis Clinic at Pulianthope, there are 4 Tuberculosis Clinics attached to the 4 Government Hospitals in the City. The Tuberculosis Clinics attached to the Government Hospitals were jointly maintained by the Corporation and the Government, the Corporation meeting the expenditure on establishment and the Government meeting the expenditure on medicine, accommodation, etc. The Clinics continued to be under the direct control of the Director of the Government T. B. Institute, Egmore.

During the year under report, the general dispensaries attended 16,36,269, new cases and recorded a total attendance (new and old cases) of 34,30,333. The number of minor operations performed was 9,661. As this year was affected with an epidemic of imported Influenza fever, the general dispensaries of the Corporation of Madras rose to the occasion to give relief to the poor and the in-need by treating them with Elkosin Tablets, Influenza Mixture and Penicillin Injections and the total number of Influenza cases thus treated amounted to 95,157. The location of the dispensaries and the detailed statements on the working of the dispensaries and Hospitals is furnished in the Statistics Supplement appended to the report.

Mobile Dispensaries:—Of the two Mobile Medical Units, one inaugurated in 1953, continued to serve the needs of the poor living away from the dispensaries at Kodambakkam and Adyar, while the other inaugurated in 1954 continued to render medical aid in the outlaying areas of Perambur, Sembium and Ayanavaram.

The Medical Officer of the Kodambakkam Dispensary accompanied one of the vans on every Tuesday, Thursday and Saturday. On these days this van visited by turns Choolaimedu and Namasivayapuram, Kodambakkam Cheri and Nallankuppam, Jaffarkhanpet and Mambalam Cheri and rendered medical aid. The Medical Officer of the Adayar Dispensary accompanied the vans on Mondays, Wednesdays and Fridays. On these days this van visited by turns Alcotkuppam, Vannanthurai, Damodarapuram, Kalikundram, Pallipet, Maduvankarai, Kottur Cheri, Zamin Adayar and Varadhapuram.

The other van accompanied by the Medical Officer of the Perambur Dispensary on Wednesdays and Saturdays, visited Erukanchery and Madhavaram and the adjoining cheries and rendered medical assistance. On Tuesdays and Fridays it was accompanied by the Medical Officer of the Sembium Dispensary and it visited Kolathur village and Thandavarayan Chatram and treated those who were in need of medical aid. On Mondays, and Thursdays the Medical officer of the Ayanavaram Dispensary visited Maduvankarai, Arumbakkam, Sanarpalayam, Ponnuvelu Pillai Thottam and Aminjikarai Cheries by turns.

As there was an epidemic of Influenza during the year under report, the Mobile Medical Units went round the City of Madras, particularly, to the backward and slum areas, to give medical relief to the people on the spot near their home and to those who were unable to go over to the Hospital or to the Dispensaries. Along with these, other vans of the Department were also temporarily converted into Mobile Medical Dispensaries to give relief to the people from the ravaging Epidemic Influenza.

Skin and Leprosy Clinics:—The Madras City Corporation continued to maintain the two Skin and Leprosy Clinics—one in Vyasarpadi and another in Triplicane. Their activities consisted of treating cases at the dispensaries, conducting survey, doing propaganda work and segregating infective cases.

The Central Leprosy Teaching and Research Institute at Thirumani in the Chingleput District has 36 beds reserved for the patients from the City. Cases examined in the Corporation Clinics and requiring institutional treatment were recommended for admission in the Institute. The Corporation paid a capitalion grant of Rs. 50/- a month for every bed utilised.

The School Medical Inspection staff directed cases of Leprosy to the Clinic at Vyasarpadi and Triplicane for treatment.

In this respect, close co-operation was maintained between the clinical staff and the school medical inspection staff.

3. SPECIAL CLINICS

Report of the work of Leprosy Clinics, for the year 1957.

This is the 9th Annual Report of the working of the Madras Corporation Leprosy Clinics.

There are two Leprosy Clinics situated at Dr. Besants Road, Triplicane and Gantz Road, Vyasarpady. These serve the Southern and Northern Parts of the City. These Clinics are situated in these particular localities on account of the prevalence of more number of slums in these areas.

Each Clinic is in-charge of a Medical Officer, specialised in Leprosy work and is assisted by a Health Visitor and an Injector.

The Control of the Control

Preventive and control activities.—New patients attending the Clinics were explained the nature of the illness and its hazards to them and to their environment. They were instructed to observe certain practical preventive measures as follows: Infective cases were advised to avoid close contact with young children by not sleeping in the same bed with such children and keeping their dress and utensils beyond their

The hazard and danger of ulceration and deformity from being careless in carrying out, manual work and work involving contact with fire and hot objects has been brought home to patients. The importance of massaging hands and feet and attending promptly to minor injuries in these situations have been impressed on non-infective cases of Leprosy who are likely to suffer from disabilities due to deformity and ulceration.

Survey.—The slum areas around the Clinics have been surveyed a few years back. Attendance of cases from these areas for treatment has been found to be very irregular. Hence attention has been bestowed on the re-survey of these localities with a view of finding the progress of the illness in these areas. The gross population changes revealed by re-survey makes assessment of progress of the illness in these localities difficult. The object of the re-survey has also been to improve the regularity of attendance for treatment which is an important factor as a preventive measure against the spread of the illness.

Results of	Survey	Work-
------------	--------	-------

Results of Survey Work—	Leprosy Clinic Vyasarpady	Leprosy Clinic Ice House Road
1. Total Population Enumerated	5,244	5,569
2. Total Population Examined	4,156	3,485
3. Percentage of population exami	ined 80.8	62.65
4. Total Leprosy cases detected	41	67
5. Gross incidence	9.8	18.9
6. Child incidence	2:7	10.8
7. Open case rate	7:3	16.4

Laboratory Investigation.—Examination of skin smears of new and old leprosy cases have been carried out to detect infective cases. Haemoglobin estimations have been done to control treatment. These have been helpful in concentrating attentions of families of infective cases so as to detect fresh cases at the earliest opportunities.

Hospitalisation facilities as available at present are found to be inadequate in consideration of the demand for them.

Details of Hospital Work done in 1957-

٠		L. C. Vy a sarpady	L. C. Ice House Road
1:	No. of new cases registered in		
	Men	1,579	2,179
	Women	1,164	1,664
	Children	3,285	4,003
2.	No. of infective cases of Leprosy	155	197
3.	No. of Non-Infective cases of		
	Leprosy	351	463
4.	Total No. of Leprosy cases	506	660
5.	No. of Non-Leprosy cases (skin cases)	5,522	7,186
	 2. 3. 4. 	1. No. of new cases registered in the Clinic Men Women Children 2. No. of infective cases of Leprosy 3. No. of Non-Infective cases of Leprosy 4. Total No. of Leprosy cases 5. No. of Non-Leprosy cases	1. No. of new cases registered in the Clinic Men Women Children 3,285 2. No. of infective cases of Leprosy No. of Non-Infective cases of Leprosy Leprosy 4. Total No. of Leprosy cases 5,522

Veneral Clinic

The Clinic is situated at Nos. 83 & 83-A, Strahans Road, Otteri, in the 19th Division. It serves the whole City, especially 17 to 24, 26, 32 & 33 divisions, and mofussil areas like Avadi, Villiwakkam, Red Hills, etc. The Clinic is working in 2 separate buildings for the male and female sections.

During the year under review, the number of cases treated are as follows:

New Cases Treated Total Cases T				Treated	A	verage Attenda		
Male	Female	Children	Male	Female	Children	Male	Female	Children
1343	845	342	4627	3849	950	12.67	10.65	2.60
	2,530 9,426			25.8	32.			

1,203 injections have been given, 1,071 blood specimens were tested for V.D.R.L. 450 specimens were examined under Dark Ground Microscope and 958 specimens were tested for Gonorrhoea. 3 Minor Operations were done.

Classification of Diseases:—

1 100		Veneral	Non-			
Sex	Syphillis	Gonor- rhoea	Soft sore or chancroid	Bubo	veneral	-Total
Male	. 92	235	480	46	490	1,343
Female	. 80	183	• • •	, 1	533	797 [°]
Children (under 15 yrs.)	. 21	20	···		329	370
Total	. 193	438	480	47	1,352	2,510

Treatment

Treatment of Syphillis is purely on the basis of W.H.O. recommendations. Each patient gets a total of 16 c.cs. of PAM in 3 injections within 8 days, i.e.

	1st Day	5th Day	8th Day
Adults	8 c.cs.	4 c.cs.	4 c.cs.
Children (under 5 years)	2 c.cs.	1 c.c.	1 c.c.
Children (above 5 years as	4 c.cs. nd below 13 y	2 c.cs. ears)	2 c.cs.

235 couples were examined. In 133 couples, blood was taken. Of these, in 20 cases both husbands and wives were positive and in 18 instances husbands alone were positive and in 63 cases wives alone were positive. In 24 instances husbands, wives and children were positive and were treated. Of women treated for Syphillis at nearby Child Welfare Centres, husbands of only 33 women were referred to this clinic for examination and treatment and of these 33, only 9 were positive.

Follow up Work

During the year 219 houses were visited and contacted 147 patients out of which only 63 responded. The follow up work was suspended from April onwards due to the retirement of the Health Visitor.

Staff Working in the Clinic

... 3 : ...

Medical Officers: 1. Dr. K. V. Nair.

2. Dr. Mrs. Emoch.

Tuberculosis Clinic, Pulianthope

The Clinic situated at 13, Pulianthope High Road, Pulianthope was in its 14th year of activity during the year under review. It continued to meet the demands on its services particularly from its preventive control area comprising Pulianthope, Choolai, Perambur, Sembiam, Kosapet, Vyasarbady, Ottery and Ayanavaram.

8,879 new patients sought the opinion and advice of the Clinic during the year.

Clinical and Fluoroscopic Examinations were done as a routine on every case. Radographic and Laboratory Examinations were done as and when they were required for diagnostic treatment and aftercare check-up purposes. The services of the Corporation Public Health Laboratory were utilised whenever required.

References from the Private Medical Practitioners and social and Medical Centres in the City were attended to as in the previous years.

Sorting and Disposal of cases after diagnosis are detailed in the statements appended.

Awaiting list of patients suitable for Hospital treatment was maintained as in the previous years. Each case in the list was considered on its merits and the urgeney of admission to the Corporation Sri Tiruvoteeswarar Tuberculosis Hospital, which provides for in-patient treatment in the anti-Tuberculosis Scheme of the Corporation of Madras.

Contact Examination and Home Visiting:—This was possible through the medium of the Health Visitor. It was noticed that a good number of Tuberculosis cases were coming from out-side the City and staying with their relatives in the Control Areas.

Advice on the method of prophylaxis by the Medical Officer at the Clinic and in the houses by the Health Visitor formed a regular feature of the activity of the Clinic.

The Corporation B. C. G. Team visited the Clinic on two days in a week and the opportunity was availed of by the Clinic for the benefit of the contacts and the children who attended the Clinic for examination.

8,879 new cases were examined at the Clinic. Out of this 1,141 were found to be Pulmonary Tuberculous Cases, and 184 were found to be Non-Pulmonary Tuberculous Cases. Total number of Tuberculous cases diagnosed was 1,325.

32,405 Old Cases were attended to. The grand total of patients who attended the Clinic was 41,288. The daily average attendence was 115.

The state of the s

Table A -Showing the number of cases examined and the number of Tuberculosis cases among them during the year 1957

Year		No. of cases examined	No. of cases diagnosed as Pulmonary Tuberculosis		Total No. of cases dignosed as Tuberculosis	Percentage of Tuber-culosis cases examined
,1952		9,814	1,680	124	1,804	18:4
1953		10,073	1,442	140	1,562	15.1
1954		9,275	1,260	120	1,380	13.1
1955		9,862	1,331	143	1,474	14.9
1956		8,492	1,237	161	1,398	15.2
1957	-	8,879	1,141	184	1,325	14.9

Table B-Showing the daily average attendance during the year 1957

	Year		Daily aver- age	, ,
	1952		150.5	
		• • •		
	1953	• • •	146.3	
	1954	•••	140.9	
	1955	•••	110.4	
	1956	• • •	109.0	
4000	1957	• • •	115.0	

Table C

	ined				examination		mark				sits th vi		'S		
Year	No. of sputum examined	No. of aspirations	No. of A. P.	No. of P. P.	No. of contact exam	P.T. I	P.T. II	P.T. III	Normal	New	Old	Hospital discharge	Total	Radio graphy	Fluroscopy
1957	500 8		Nil	12	1217	13.	4	23	1177	807	351	383	1543	931	11,152

Table D-Out-patient Statement for 1957

Att	tendance at	the Clinic	;				
Male	Female	M.C.	F. C.	Total New	Total Old	Grand total	Daily average
New Old	New Old	New Old	New Old				
3,840 14,596	3,232 13,304	926 2,686	881 1,823	8,879	82,409	41,288	115

Statement E-Diseases treated for the year 1957

P.T. I	P.T. II	P.T. III	Total No. of P.T. cases	Non- Pulmo- nary T.B.	Coryza	Influenza	Bronchitis	A.C. Bronchitis	Br. Asthma	Bronchitiasis	Eosno phil Lung	Tonsilities
7	31	1,103	1,141	184	2	89	2550	7 ·	1049	55	23	58

Statement E—Diseases treated for the year 1957—(cond)

Heart diseases	Diabetes	Malaria	Kala-Azar	Filariasis	Brancholities	Pneumonia	Pleurisy	Whooping Cough	Emphasema	Other diseases	Normal	Total
77	1	9	4	2	Nil	9	69	5	3	1,102	2,440	8,8 79

Statement F-No. of B and C Mill cases and Corporation employees

Mill cases attended	No. of positive cases	No. of Corpora- tion employees	No. of positive cases
Col. 1 Nil (o. 1	· Nil · ·	238	IF 2 35 1001.7201

Positive cases according to PLACES for the year 1957

Year	Pulianthope	Choolai	Kosapet	Perambur	Vyasarpady	Sembiam	Iynavaram	Total	Cases Referred to T.B.I. Egmore	Referred to T.B.C. Govt. General Hospital
1957	177	176	94	91	40	87	70	735	48	27 -

Positive cases according to PLACES for the year 1957—(contd.)

T.B.C.	d to T.B.C. Royapettah	Govt.				C	ases fr	om	
Referred to T.B.C. Govt. Stanley Hospital	Referred to T.B. Govt. Royapett Hospital	Referred to Go K. G. Hospital	Cases from Mofussil	Grand Total	T. B. I. Egmore	G. H.	Stanley Hospital	Royapettah Hospital	Govt. K. G. Hospital
201	27	13	90	1,141	Nil	Nil	Nil	Nil	Nil

Positive cases according to AGES for the year 1957

Year	Years 0-5	Years 6-10	Years 11-15	Years 16-20	Years 21-25	Years 26-30	Years 31-35	Years 36-40	Years 41-45	Years 46-50	Years 51–55	Years 56-60	Years 60 and above	Total
1957	22	15	54	156	215	217	125	115	85	74	21	31	11	1,141

Nationality and Sex of the positive cases

Year	Hindus	Muslims	Christians	Total	Male	Female	Children	Total
195,7	1009	77	55	1,141	650	449	42	1,141

Classification of Positive cases according to occupation for 1957

Total	Attender	Peons	Watch men	Time-keeper	Barbers	Beedi workers	Business men	Electricians	Mechanics	Butter and Baker	Printing	Clerks	Conductor	Coolies	Ryots
1,141	Nil	5	5	Nil	5	12	11	1	5	1	7	2	Nil	288	3

Classification of Positive cases according to occupation for 1957-(contd)

Mill worker	Driver	Dhobies	M.F.S.	Fisher-men	Police	Weaver	Goldsmiths	Teachers	Priest	Tailors	Merchant	Milk men	Painters	Plumber	Cobblers	Students	Sweeper	Doctors,	Destitute	House wives	Unemplo-
Nil	Nil	9	Nil	4	Nil	10	6	4	Nil	23	Nil	6	13	Nil	3	47	1	Nil	Nil	363	307

Returns and Statement for 1957

No. of New Cases	No. of Open Cases	No. of Non- Pulmonary P.T.	Old Cases	A.P. Initials	A.P. Refills	Patients attending for A.P. Refills	No. of P. P. Initials
8,879	1,141	184	32,409	Nil	Nil	Nil	12

Returns and Statement for 1957—(contd.)

P.P. Refills	Patients attending for P.P. Refills	Injection	No. of Cases Visited in their houses by H.V.	No. of Cases visited in their houses by Medical officer	No. of contacts examined in the home	No. of contacts examined in the Clinic
791	68	5,698	1,543	Nil	Nil	1,217

and making and a second a second and a second a second and a second a second and a second and a second and a second and a second a second and a second a second and a second a second and a

Type of Tuberculosis diseases treated for the year 1957

Pulmonary Tuberculosis	Tuberculosis of Glands	Osteo- Articular	Abdominal Entrities	Abdominal Intestines	Meningeal	Tuberculosis Skin	Genito- Urinary Tuberculosis	Pleural with- out lung affec- tion dry		Other Forms	Total
1,141	100	1	19	-19	Nil	Nil	Nil	25	20	Nil	1,325

Classification of Patients according to income 1957

Rs. 5-10	Rs. 11–15	Rs. 16–20	Rs. 21–25	Rs. 26–30	Rs. 31–35	Rs. 36-40	Rs. 41-45	Rs. 46–50	Rs. 51–55	Rs. 56–60
26	56	111	190	178	249	119	49	43	35	22

Classification of Patients according to income 1957—(contd.)

Rs. 61–65	Rs. 66–70	Rs. 71–75	Rs. 76–80	Rs. 81–85	Rs. 86–90	Rs. 91–95	Rs. 96–100	Rs. 100 and above	Total
21	14	8.	. 9	5	3	1	1	1	1,141

Home Visits by the Health Visitors and Contact Examination during the year 1957

Year	Cases			
1952	1,130			
1953	1,002			
1954	3 869			
1955	935			
1956	1,853			
1957	807			

Number of Contacts Examined at the Clinic at the instance of the Health Visitors during the year 1957

-	Year		Cases		
	1952	•••	1,845		
	1953	•••	1,787		
	1954	•••	1,287		
1	1955	•••	1,296	1	
	1956	•••	1,675		
	1957	•••	1,217		

Tuberculosis Clinics at the Gevernment Hospitals:—The four Tuberculosis Clinics each attached to the General Hospital, Stanley Hospital, Royapettah Hospital, and the Kasthuri Bai Gandhi Hospital, continued to be maintained jointly by the Madras Government and the Madras Corporation, the Government meeting the expenditure on medicine and accommodation of the Clinics and the Corporation bearing the charges on establishment. The Clinics are under the direct control of the Director of Tuberculosis Institute, Egmore, and the Health Officer of the Corporation exercised overall supervision over them.

Each Clinic was incharge of a Medical Officer assisted by two Health Visitors, excepting the Clinic at the Kasthuri Bai Gandhi Hospital where there was only one Health Visitor.

All the Clinics had the benefit of the services of House Surgeons and laboratory facilities of the Hospitals to which they are attached. An emergency ward attached to each of these Clinics proved extremely beneficial for cases like Haemophtysis and Spontaneous Pneneumothorex needing immediate attention.

The Clinic attached to Kasthuri Bai Gandhi Hospital attended only to cases among women and children. The other Clinics served the needs of both men and women patients.

The Control Areas of these Clinics are detailed hereunder:—

T. B. Clinic at the Government General Hospital.

Chintadripet
Periamet
Park Town
Edapalayam
Trevelyan Basin
Sowcarpet
Kothawal Bazaar
Kachaleswarar Agraharam
Napier Park.

T. B. Clinic at the Government Stanley Hospital

New Washermenpet
Royapuram
Singara Garden
Sanjeevirayanpet
Korukupet
Basin Bridge
Peddu Naickenpet
Seven Wells
Amman Koil
Harbour.

T. B. Clinic at the Government Royapettah Hospital.

T.Nagar, South
T.Nagar, North
Royapettah
Mylapore, South
Mylapore, North
Teynampet
Saidapet
Adayar
Kodambakkam.

T. B. Clinic at the Government Kasthuri Chepauk
Bai Gandhi Hospital.

Pudupakkam
Thiruvoteeswaranpet
Chepauk
Triplicane
Jam Bazaar
Mirsahibpet

Tuberculosis Clinic, Government General Hospital, Madras. Annual Administration Report 1957.

Tuberculosis Clinic, Government General Hospital, functions daily between 2 to 5 p.m. except on Sundays at the out-patient department.

Staff:—

Medical Officer-in-charge of T. B. Clinic.

Two to three House Physicians (change every month)

Two Health Visitors.

One Staff Nurse.

One Clerk

The Director, Govt. T. B. Institute and Clinics, supervise the work in the Clinic and also in the wards twice a week.

Facilities available:—

Screening, X-ray, Laboratory, etc.

There is an emergency ward of 18 beds (12 for males and 6 for females) attached to this Clinic. Emergency cases of Pulmonary Tuber-culosis like Haemoptysis, Spontaneous Pneumotherax etc., are admitted into these wards.

Hours of work: Daily Routine:-

8-11 a.m. House visiting by Medical Officer and Health Visitors

11- 1 p.m. ward work by Medical Officer and House Physicians

2-5 p.m. out-patient work by Medical Officer and House Physicians.

The two Health Visitors also attend to all cases coming to the outpatient department Clinic. Patients' names are registered, addresses noted correctly, examined thoroughly and screened. X-ray and laboratory investigations are done the next day. Diagnosis of Pulmonary Tuberculosis are made and their register is maintained. Treatment is advised and started. All cases fit for sanatorium treatment are selected every week and their names put in the waiting list for admission in to Government Tuberculosis Sanatorium, Tambaram. Waiting-list Register is maintained at the Government Tuberculosis Institute, Chetpet. Intimations for admission are sent direct to the patient by the Superintendent, Government Tuberculosis Sanatorium, Tambaram as and when vacancies arise.

1. Number of cases registe	red at the C	Clinic.		
Males	•••	•		4,776
Females		•		2,292
Children	•••		• } •	636
THERETON	t .		Total	7,704
	ļ			
2. Number of Pulmonary T	uberculosis	cases in t	he above.	3,704
P. T. I	P. T. 1	II	P. T. 1	II
Males 131	Males	9.7	Males	2,293
Females 124	Females		Females	888
Children 61	Children	16	Children	54
Total 316	Total	153	Total	3,235
3. Number of open cases in	the above	í	3,235	
4. Number of non-pulmonar	ry Tubercul	osis cases:	,	
Cervical Adentitis	1.	,	121	
Bone Joint, T.B.			52	
T.B. Larunx	13 77 00	VI /- =	11	
Pleurisy with effussion			94	
		. т	otal 278	
			——————————————————————————————————————	
5. Number of non-tuberculo	sis cases:		*	
N.A.L.		3 0	1,559	
Ch. Bronchitis			1,201	
Pulmonary Eiosiniphelia			28	
V. D. H.			10	
Br. Asthama			128	
Pneumonia		,	2	
Bronchiectanois			8	
H. Y. D.			786	
1,1		To	otal 3,722	
6. Total Number of old cas	es which att	ended the	O.P.:	
Males			19,135	
Females			9,080	
Children			2,022	
		T	otal 30,237	
7 Doily areas				1
7. Daily average attendance		ew 25 & O	ld 96)	;
8. Number of in-patients tre			·	
Males Females	581			
remaies	208	1,1	-	1
Total	789			5.
			e de la company	1 1

(";, -...

Treatment

1. Antibiotics:—

- (a) Streptomycine
- (b) P. A. S.
- (c) I. N. A. H.

The drugs are widely used and are given free to the poor and deserving, patients who attend the Clinic as out-patients.

13.5, 32 1 1 1 2 1

2. Collapse Theraphy:—

- (a) A. P.
- (b) P. P.

Artificial Pneumothorax:—

Number of initial A. P's.	•••	1
Number of A.P. refills	•••	38
Number of patients attended for A. P. refills	• • •	15

Pneumopentoneum:

venioneum .		
Number of P. P. (Initial)	•••	28
Number of P. P. (Refills)	•••	612
Number of patients attended P. P. refills	•••	482
Number of injections given		
(S.M., Liver: Calcium etc.)	****	11589
Number of Radiography done	•••	6506
Number of aspirations done	•••	44
Number of deflations done	•••	21
Paracenthesis abdominus	•••	Nil
Lumbar Puncture	•••	Nil

Tuberculosis according to age:—

1 to 5 years	•••	30
6 to 10 years	•••	18
11 to 15 years	• • •	44
16 to 25 years	•••	792
26 to 35 years	• • •	1,295
36 to 45 years	•••	685
46 years and above	•••	371
,	Total	3,235

T. B. Patients according to their income-

Nil	•••	167
Rs. 10-20	•••	260
Rs. 21–40	•••	2,033
Rs. 41–75	•••	669
Rs. 76–100	•••	72
Rs. 100 and above	•••	34
	Total	3.235

T. B. Patients according to Occupation—

		1.67
Nil	•••	167
Coolies	*. ••	1,878
Ryots	•••	119
Clerks and typists	•••	. 156
Weavers	•••	70
Peons and Attendants	•••	206
Petty Businessmen	•••	103
Police Constables	•••	30
Tailors	•••	86
Electricians	•••	85
Watchmen	•••	23
Teachers	•••	50
Pensioners	•••	4
Mechanics	• • •	32
Milk men	•••	26
Dhobies		46
Drivers	" =	35
Barbers	•••	32
Carpenters	•••	52
Goldsmiths	•••	35
	Total	3,235
	Total	3,233

Contact Examinations—

Health Visitors and Medical Officer visit the houses of patients in the following divisions of the City.

* <u>*</u>	Name	Corporation Division Number.
1.	Kachaleeswarar Koii	13
2.	Kothawal Bazaar	14
3.	Sowcarpet	15
4.	Travelyan Basin	16
5.	Periamet	26
6.	Edapalayam	27
7.	Park Town	28
8.	Napier Park	29
9.	Chintadripet	30, 11

Advice is given regarding isolation of patients and disposal of sputum. All contacts are examined, screened and X-rayed if necessary.

ed and X-rayed if necessary
Medical Officer 295
lealth Visitor
1st visits 685
Revisits 2,360
Total 3,045

Number of contacts examined in the Clinic:

Men			1.1	401
Women	,	miletine.	•••	512
Children	,	allowed.	•••	419
		Tot	al	1,332

Number of Pulmonary Tuberculosis Cases Detected among The Contacts

	P.T. I		P.T.	II	P. T. J	II	
Men	•••	29	Men	1	- Men	•••	10
Women	•••	47	Women	•••	Women)	12
Children	n	19	Children	l	Children	• • •	·2
		95		1			24
			Total	120			
Per	centage	of T	B. among	contacts	•	•••	9%
Nu	mber of	Fami	ly Planning	g advice g	given	•••	62
					is cases in Hospital		519

Annual Report of the T. B. Clinic at Government Stanley Hospital for 1957

C

h-18

Cura	tive side					
1.1	. `		Men	Women	Children	Total
1.	Number of new cases (including contacts)	u- 	3,434	1,867	1,100	6,401
		_	P.T. I	P.T. II	III	
2.	Number of Pulmonary T. Cases	B.	398	•••	1943	2,341
3.	Number of open cases the above	in 	•••		•••	1,943
4.	Number of Non-Pulmona T.B. cases.	ry	6			
	Miliary Pleurisy	•••	1	•	1 -	1 17
	Lupon Adentis	•••	5 41	••	900 o	113
	Spleen of the bones Enteritis	•••	43 6		ī	0.65
5.	Number of Non-tubercula cases	ry				2,206
6.	Number of old cases.		v > •		;_ ·	
	Men Women	•••	9,413 9,357			19,397
	Children	•••	.627 j		1.	,

				JUL 21 2		Men	nji W	omen	Child	ren	Total
7.	Number of A	A.P.	Initi	als							1
8.	Number of A							-0			9
9.	Number of P	.P.	Initia	ıls			7 1	11,77			7
10.	Number of Fing for A.	Patie	ents a	attend-		R					7
11.	Number of I						•				936
12.	Number of for P.F. re	Pi efill:	ts - att s	ending		· -	1111		_ 1	1.	113
13.	Number of I (strept. etc.			quiecs		p. \$	•		3.0		6,610
14.	Number Scre	eein	gs do	one		65				<i>f</i> .	5,300
15.	Number asp	irati	ions'c	lone							27
16.	Number of ferred from						11 1		4 A .		75
Age .	group:—										
	Age		P.	.T. I	_	P.T	. II	Р.Т	C. III		Total
T.	1gc	•	M.	F.		M.	F., '	M.	F	3	1000
1	to 6	•••	64	42		•••		22	21	"	149
7	to 10	•••	25	25		•••	•••	9	15		74
11	to 15	•••	11	8		•••	•••	8	11.		38
16	to 25	•••	46	48		••••	•••	332	210		636
26	to 35	•••	61	48		•••	•	412	164		685
36	to 45	•••	34	19		•••	•••	277	85		415
46	and above	•••	25	13		•••	•••	26 8	38		344
	Total	•••	266	203		<u></u>	<u></u>	1,328	544		2,341
Incom	ne group :—										
F	Rupees							No. of	cases		
1	0 to 20		•••					435	5		
2	1 to 40		• • •		•			1,448	3		
4	1 to 75		•••					351			
7	6 to 100		•••					88			
1	00 and above	;	•••					19	· ·		
N	No income		•••					•••			
Т	Cotal		•••				•	2,341			
Оссир	ation :—						0				
_)							No. of			
	Coolies				• • •			985			-
	Lyots			-	•••			236			
	eedy Rollers			- 1	•••	,		148	11		g
C	lerical				•••		\	117	•		3

idings in the Land	V_ L	No. of	cases	Y. * *
Private .			3	
Businessmen .	••	19	6	p ·^
Tailors .	••	8	3	
Weavers etc.,	••	23	0	9-7
Employees of State Insurance.	••	4	2	
N.G.O	••	9	0 , 1,	٠
Pensioners	W 17 1	. 3	1	y -
Total .		2,34	1	-
			- "	ı
Preventive side :—			9	
7/22 1077 11		First visit	Re- visit	Total
1. Number of houses visited—	- ,	(1)	٠,	•
By Health Visitor		953	1,167	2,120
By Medical Officer		384	•••	384
	in the Cli	into		,
2. Number of contacts examined Men	353			
Women	n 374	4 >	• • •	1,133
Childre	en 406	5)		
•	P.T. I	P.T. II	P.T. III	Total
3. Number of P.T. cases foundamong the contacts	d 46	•••	62	108
4. Coverage so far in the current	nt			
year .	•• •••	•••	•••	1,133
5. Coverage so far from 195 to 1957		•••	•••	9,655
6. Family Planning—				- ,
Advice given .	• •			19
Advice taken .	••			12
Failure .	••			1
Contact coverage:—				
100000000	1s	Present year t January ecember 19	to to]	om 1951 December 1957
Patients picked up	•••	1,219		6,650
Houses visited	••• ,	953	1	4,515
Number querried	•••	2,810		9,907"
Number of contacts totally exar	nined.	1,133		9,651
Number found P.T.—				
P.T. I		46		327
P.T. II		Nil		Nil! *
P.T. III	•••	62		183;
Total number of P.T. cases		108		569)

Annual Report of the T. B. Clinic, Government Royapettah Hospital, for the Year 1957.

T. B. Clinic work covers an area of 15.2494 sq. miles—8 Divisions.

Population catered to:—2,23,489 (according to old census)
Staff attached to the clinic is as follows:—

- 1. Full time paid Medical Officer ... One
- 2. Qualified Health Visitors (Women) ... Two
- 3. Registration Clerk (Part-time) ... One
- 4. The T.B. Clinic takes the services of the Staff attached to the Government Royapettah Hospital, X-Ray Department and Clinical Laboratory, for X-raying and laboratory examination respectively.
- 5. The Staff Nurse posted to the T. B. ward is also posted to work in the Clinic in the afternoon.
- 6. The M. N. O. and F. N. O. posted to the Clinic are part-time workers who have other duties in the other Departments of the Government Royapettah Hospital.

Work done by the Clinic Staff:-

- 1. Contact work.
- 2. T. B. Ward work (in-patients).
- 3. T. B. Clinic (out-patient work).
- 4. Conference (every Wednesday at Egmore T.B. Institute between 10-30 A.M. and 12-30 P.M. to discuss and also for surgical interference.)
- I. Contact Work:—Between 8 A.M. and 11 A.M. all contacts of open cases are querried at their houses and a thorough check-up is done at the Clinic. The cases are informed how to dispose of the sputum and also told spitting at random is dangerous to all and also to society on the whole.
- II. T. B. Ward work:—All the emergency cases i.e. cases with Haemoptysis, Spontaneous Pneumothorax, Hydro-Pneumothorax, Pleurisd with massive effusion and also morribund cases with Dyspuoea any breathlessness, are admitted till the emergency is over. Patients admitted come through.
 - (1) The Government T.B. Institute, Egmore.
 - (2) Govt. Royapettah Hospital T. B. Clinic.
 - (3) Govt. Royapettah Hospital Casuality Department.

Bed Strength:—18 regular beds, only for men.

Hours of work:—11 A.M. to 1 P.M. daily.

No. of emergency cases with P.T. admited for the year 1957 347

No. of cases for Haemoptysis ...

9

No. of cases for Spontaneous Pneumothorax

No. of cases expired

gr. e. M. To reday n. Asta 744

III. T. B. Clinic:—(Out-patient work) between 1-30 P.M. to 5 P.M.

The Clinic responds to 8 divisions alloted to it and also people who wish to take treatment are also examined here and given advice. Some are referred to their respective T.B. Clinics.

In addition, to cases referred for opinion by the other Departments of Government Royapettah Hospital are also examined at this Clinic.

N.B. No screenings were done till now as the screening machine is out of order from the middle of September 1956 and also the plant is housed in an ill-ventilated small room with no exhaust fans.

During the year, we have had the fortune to distribute milk powder to P. T. patients and their contacts by the kind patronage of CARE India, New Delhi. Many of our patients really enjoyed the help and benefited much by the distribution.

From the statistics, it can be clearly seen that the incidence of Pulmonary Tuberculosis is at its zenith in the earlier age groups and in the same group, the incidence is highest in the male sex and also in the low income group of Rs. 20 to 40. Fuller details are furnished in the foregoing pages.

Remarks:—During the year 1957, all the work in the ward and at the T. B. Clinic, only the Medical Officer had to carry out single-handed with the co-operation of the Staff-Nurse posted in the ward.

Patients attending the Clinic are really poor and belong to low income group.

(a) Coolies,

- (d) House wives, and
- (b) Beedi workers,
- (e) the large group of unemployed.
- (c) Tailors,

All the cases diagnosed as P. T. (among the poor) do not get a free chemotheraphy as the supply to this Clinic is very small. I wish the authorities to show some more interest to the Clinic and supply free Streptomycin and I.N.H. liberally for the supply the poor as in other big State Hospitals.

Most of the patients fail to attend the Clinic regularly not only because they fail to realize the havoc caused by interrupted treatment but also because they do not get liberal supply to their hearts' content.

In addition, our society and state are not able to keep this problem as is being done in the Eastern Countries. Health Education and Propaganda (including visual) is of primary importance.

The work involved in this Clinic is so heavy that this Clinic needs at least two full time Medical Officers and three Health Visitors to execute the work efficiently to the satisfaction of both patients and the State.

Lastly we are given some funds to the very needy patients by the "Shayorogh Nivaran Fund" and also by State Tuberculosis Association of Madras. This helps the poor P. T. patients who are really not in a position to look after themselves and also their families.

After-care and Rehabilitation Centres must be more and the social workers also must show great interest in teaching these patients, the way of life and also the outlook in life if only they take care of themselves—the spread of Tuberculosis will be much more reduced and the society may benefit more out of it.

GOVERNMENT ROYAPETTAH HOSPITAL, MADRAS TUBERCULOSIS CLINIC

(Age and sex groups of cases diagnosed to be suffering from Pulmonary Tuberculosis for 1957.)

A co crown	· · P	.T. I.	P. 1	г. н.	P.T. III.		
Age group	Men	Women	Men	Women	Men	Women	
1 – 5	7	5	1	2	.1	2	
5 – 10	6	8	. 1	2	1	3	
11 – 15	2	5	•••	2	6	. 8	
16 – 25	27	20	12	13 -	142	79	
26 – 35	23	13	13	16	160	56	
36 – 45	16	8	4	5	139	30	
Above 45	14	6	13	3	131	36	
Total	95	65	44	43	580	204	

Income group of Cases diagnosed to be suffering from Pulmonary Tuberculosis

Income			No. of Cases
Rs. 1 to 9	•••	•••	9
,, 10 to 20	•••	•••	63
,, 21 to 40	•••	•••	430
,, 41 to 75	•••	•••	110
" 76 to 100	•••	•••	14
Above Rs. 100	•••	•••	8
Unemployed	•••	• • •	150
	100		784

Occupation Group

49. 45 6		T. P.	or on p		
Actors	• • •	3	Dhobies		2
Milkmen	•••	7	Beedi Rollers	•••	36
Pensioners	•••	3	Cooks	•••	6
Painters	•••	4	Barbers	• • •	4
Messengers	•••	2	Salesmen	•••	19
Clerks	•••	17	Watch Repairer	•••	1
Carpenters	•••	5	Mechanics	•••	14
Landlords	•••	1	Artists	•••	Nil
Police Constables	•••	1	Fishermen	•••	7
Tailors	•••	30	Drivers	•••	15
Chargemen	• • •	1	Weavers	•••	25
Sweepers	•••	4	Masons	•••	1
Goldsmiths	•••	7	Ryots	•••	.44
Housewives	•••	64	Peons	•••	21
Coolies	/···	294	Teachers	•••	4
Gardener	•••	9	Unemployed	5	132
Total	• 4	452	Grand Total	14.	784

9₀0 9004

Government Royapettah Hospital, Madras-14

Annual Report of the Model Tuberculosis Clinic at Government Royapettah Hospital, Madras for the year 1957.

1. No. of New Cases (including contacts)

Men	Women	Children	Total
2,223	1,310	405	3,938

2. No. of Pulmonnry Tuberculosis Cases:

P.T. (i) 162; P.T. (ii) 87; P.T. (iii) 784; Total 1,033

- 3. No. of open cases in the above: 784.
- 4. No. of non-Pulmonary Tuberculosis cases: 55.

 T.B. adenitis-31; Pleurisy-7; Pleurisy with effution-13½

 Lymphadenitis-1; T.B. Free 1.
- 5. No. non-Tubercular cases: 2850.
- 6. No. of old cases: Men-17,321; Women: 11,296; Children: 2,315; Total: 30,932.
- 7. No. of A.P. Initials: Nil.
- 8. No. of A.P. Refills: 8.
- 9. No. of patients attending for A.P. Refills: 2.
- 10. No. of P.P. Initials: Nil.
- 11. No. of P.P. Refills: 443.
- 12. No. of patients attending P.P. Refills: 25.
- 13. No. of Injections given (Streptomycin etc.)-7,872.
- 14. No. of Screenings done ... Nil.
- 15. No. of Aspirations done ... 15.
- 16. No. of cases referred from other Clinics ... 69.
- 17. No. of houses visited:

 (a) By the Health Visitor

 (b) By the Medical Officer

 Ist visit Re-visit Total

 238

 818

 1056

 465
- 18. No. of contacts examined:
 - (a) In the Homes ... Nil
 - (b) In the Clinic ... 203.
- 19. No. of P. T. Cases found amongst contacts:
 P.T. (i) 24; P.T. (ii) 3; P.T. (iii) 19; Total 46.
- 20. No. of cases of Tuberculsis tested ... Nil
- 21. No. of patients getting financial aid ... 5
- 22. No. of patients admitted for Family Planning ... 30
- 23. No. of patients put in the waiting list to ... 101
 Tambaram Sanotorium.

ANNEXURE II—STATISTICS for 195	57
A. 1. Total No. of cases registered	3,938
2. Total No. of cases Pulmonary Tuberculosis	1,033
3. Total No. of Non-Pulmonary cases	55
4. Total No. of Non-Tubercular cases	2,850
B. Tuberculosis cases:	
(i) P. T. I	162
(ii) P. T. II is a second of the second of t	87
(iii) P. T. III	784
C. Non-Pulmonary Tuberculosis Cases	55
(a) T.B. of Pleurisy: Dry	7
Wet	13
(b) T.B. of glands Neck	31
(c) T.B. Abdoman	- 0
(d) T.B. Knee	1
(e) T.B. Sternam	1
(f) Lymphadenitis	1
(g) Hydrothorax	1
Total	55
ANNIEVIIDE III CTATICTICS for 10	57
ANNEXURE III—STATISTICS for 19	31
I. Diseases of Respiratory system	
1. Pulmonary Tuberculosis	1,033
2. Respiratory Catarret	27
3. Bronchitis (acute)	1,024

of Respiratory system		
Pulmonary Tuberculosis	•••	1,033
Respiratory Catarret	•••	27
Bronchitis (acute)	•••	1,024
Chronic Bronchitis	•••	22
Bronchial Asthma	• • •	330
Lung Abscess	•••	2
Pneumonia	, · · ·	4
Whooping Cough	•••	8
Botuiophilic Lung	•••	2
Laryngitis	•••	21
Pharyngitis	•••	Nil
Pleurisy Dry		7
Pleurisy Wet	•••	13
Myalgia	•••	Nil
Epistamis	•••	Nil
Cancer Lung		Nil
Cystic Lung	•••	1
Empyema:	•••	., 1
	1444	1 1
	Pulmonary Tuberculosis Respiratory Catarret Bronchitis (acute) Chronic Bronchitis Bronchial Asthma Lung Abscess Pneumonia Whooping Cough Botuiophilic Lung Laryngitis Pharyngitis Pleurisy Dry Pleurisy Wet Myalgia Epistamis Cancer Lung Cystic Lung Empyema	Pulmonary Tuberculosis Respiratory Catarret Bronchitis (acute) Chronic Bronchitis Bronchial Asthma Lung Abscess Pneumonia Whooping Cough Botuiophilic Lung Laryngitis Pharyngitis Pleurisy Dry Pleurisy Wet Myalgia Epistamis Cancer Lung Cystic Lung Empyema

. * [

II. Diseases of Condivascular System:	
Valvular diseases of heart	4
Myocarditis	15
Vascular diseases of heart	
Congestive failure	Ī
III. Diseases of Digestive System:	
Gastritis	5
Peptic Ulcer	1
Dystpephia	22
Abdomen Colics	3
T. B. Abdomen	3
Hepatitis	1
Ascitis	1
IV. Diseases of Lymphatic System and Skeletil System	:
	31
T. B. Glands Mediashinal	ĺ
T.B. Bones & Joints	2
	- Nil
Torhilitis	1
Lymphangitis	1
Pots Diseases	2
1000 21000000	-
V. Other Diseases:	
Malaria	1
Kala-azar	2
Delvility 2	25
Anaemia	3
Dysentry	7
Diarrhoea	6
Pyrexia	8
Arthiritis	4
Lumbago	1
'Flu 1	3
Abscess ·	3
Neualgia	1
Neurosis	1
Lupus Vulgaris	1
Leprosy	2
Rickets	2
Sumusitis	2
IV. No appreciable diseases 1,27	9
h—20	

4

· **.

1-17-1-

GOVERNMENT ROYAPETTAH HOSPITAL, T. B. CLINIC

Contact Coverage for the year 1957

1.	Patients picked up (open cases)	• • •	46
2.	Houses visited	•••	461
3.	No. querried at home	•••	1,395
4.	No. of contacts totally examined at the	Clinic	203
5.	No. found at the Clinic:		
	P.T. I	•••	24
	P.T. II	•••	3
	P.T. III	•••	19
6	Total Number of P.T. cases found		
0.	among contacts.	•••	46

Annual Report of the Tuberculosis Clinic at Kasturba Gandhi Hospital for Women & Children, Madras, for the year 1957.

The Tuberculosis Clinic, exclusively for women and children, is run in the out-patient department of the Kasturba Gandhi Hospital for Women and Children, Triplicane, Madras. From April 1954 Dr. (Mrs.) Ganga Bai is in charge of the Clinic assisted by one House Surgeon and one Health Visitor.

Working of the Clinic. The Clinic functions between 2 and 5 p.m. on all days of the week excepting Sundays. The Director, T. B. Institute, Egmore visits the Clinic once a week. All difficult problems and deserving patients are put on the waiting list by the Director. A clinical meeting is conducted on every Wednesday from 10 a.m. to 12 noon at the T. B. Institute, Egmore, where interesting cases are discussed. Women and Children, who are in-patients in the Hospital and who are suspicious of suffering from tuberculosis, are also referred to the Clinic.

No. of patients: During the year 1957, 1902 patients (including contacts) attended the Clinic. 325 cases are P. T. out of which 81 were put on the waiting list for admission into the Tambaram Sanatorium. In the year 1956, 2,306 patients (including contacts) attended the Clinic, 332 were P. T. and 71 were put on the waiting list.

A. P. and P. P.: Initial and Refill A. P. and P. P. are given in the Clinic after consultation with the Director. There was only one initial P. P. and 112 refill P. P. were given.

Contacts. Contacts are visited in their homes by the Health Visitor and the Doctor. They are advised on personal hygiene and preventive measures of contacting Tuberculosis. They are advised to come for screening on two days in a week i.e. on Wednesdays and Saturdays. During the year 1957, 464 contacts were examined, out of which 46 were P. T. 39 men contacts were screened.

Financial assistance and Family Planning. Financial assistance is given to poor and deserving patients. They are paid Rs. 10/- per month for a period of 6 months.

Women patients suffering from P. T. are advised not to become pregnant. They are advised to go to Family Planning Clinics.

Brief Survey:—The majority are P. T. III cases (Out of 325, 250 were P. T. III). The maximum number of cases were between 16-25 years of age (93 cases). Most of P. T. cases are housewives (211 cases) and their husbands income is between Rs. 21 and 40 (156 cases).

Curative.

Curative.			
1. No. of New cases (inclu-	Men	Women	Children Total
ding contacts)	39	1,311	552 1,902
2. (i) No. of Pulumonary	Dari	DTI	
	P.T.I	P.T.II	P.T.III Total 261 325
Women Children	11	53	201 . 323
No. of cases belonging to this area	219	,	-1 -5
No. of cases belonging to other Clinics	77		
No. of cases from Moffusil.	29		
(ii) Pleurisy Dry	Nil		
do. With effusion	8	1.	
(iii) Others	1		· •
3. No. of open cases in the			
above	83		
4. No. of non-Pulmonary			
Tuberculosis cases	• • •	96	
(i) Glands (lymphatic)	•••	82	
(ii) Osteoarticular (excluding late affection)	•••	Nil	
(iii) Meningeal (including			
C. N. S.)	•••	Nil 9	
(iv) Abdominal (v) Of Ganito-urinary system	•••	Nil	
(vi) Skin	•••	Nil	
(vii) Others	• • •	5	
5. No. of Non-Tubercular			
cases	•••	1,472	
6. No. of old cases	• • •	10,533	2,590 13,123
7. No. of A. P. Initials	•••	Nil	
8. No. of A. P. Refills	•••	Nil	
9. No. of Patients attending for A. P. Refills	•••	NiI	
10. No. of P. P. Initial,	•••	1	
11. No. of P. P. Refills	• • •	112	
12. No. of patients attending for P. P. refills	•••	4	
13. No. of injections given			ني .
Streptomycin	• • •	1,829	
Other injections	•••	2,198	
14. No. of Screenings done	•••	1,791	
15. No. of Aspirations cone	•••	3	•

Respiratory System.	13	
Influenza	•••	10
Upper Resp. attarh	3 • •	1
Tonsilitis	•••	58
Laryngitis	•••	4
Pharyngitis	÷ £ = ₽	
Bronchitis		349
Chr. bronchitis		, 3
Bronchiectasis		· 11
Whooping Cough		1
Br. Asthma	•••	123
Cystic Lung		1 1
Empyema	•••	
Pneumonia	•••	1
	•••	2
Tumour Lung	•••	2
Cardiovascular System.	*	
Vascular disease of the Heart		24
Hypertension	•••	Nil
Anaemia	•••	17
Digestive System.		
Stomatitis	•••	Nil
Peptic Ulcer	•••	
Dyspepsia	•••	48
Diarrhoea		38
Chr. Diarrhoea	•••	7
Dysentery		3
Constipation		
Cirrhosis liver		3
Nut. Oedema		3
Rickets		
Worms	•••	1
,, oims	•••	•
Urinary System.		
Pyelitis	•••	Nil
Skin	•••	6
Surgical	•••	16
Gynaec	•••	11
Other Diseases.		
Debility		111
Debility Myalgia	•••	65
P. U. O.	•••	90
Kala-Azar	•••	1
Enteric -	• • •	1
	•••	
Mumps Contacts	•••	463
Total No. of Non-Tubercular cases	•••	1,472.
Total No. of Non-Tubelcular cases	- * *	1,7/2.

.

rin = 12 (1)

Age, Sex, Income and Occupation groups among patients suffering from Pulmonary Tuberculosis for the year 1957

Age and Sex group:—

Λαρ			Females		Total
Age		P.T. I	P.T. II	P.T. III	Total
1 to 5 years	•••	2	13	39	54
6 to 10 years	•••	• • •	1	13	14
11 to 15 years	•••	1	2	6	9
16 to 25 years	•••	1	20	93	114
26 to 35 years	•••	2	10	66	78
36 to 45 years	•••	2	7	26	35
46 years and above	•••	3	1	17	21
Total	•••	11	54	260	325

Income and Occupation group:—

Income		Occupation		
Rupees	No. of cases	Type		No. of cases
10 to 20	42	House wives	• • •	211
21 to 40	156	Nil occupation	• • •	80,
41 to 75	93	Students	••••	16
76 to 100	13	Ryot-cooly	• • •	1
100 and above	9	Servant	•••	12
Nil income	12	Weaver	•••	• • •
	,	Beedi maker	•••	•••
		Petty business	ç=	•••
		Teachers	•••	5
Total	325	Т	otal	325

Preventive:—

16. No. of cases referred from other Clinics	283		
17. No. of houses visited:	1st visit	Revisit	Total
By the Health Visitor	477	505	982
By the Medical Officer	386	•••	386
18. No. of contacts examined	464		
19. Family Planning No. advised	64		
h-21			

Contact Work:--

	1.	Patients picked up	•••	432		
ď	2.	Houses visited	•••	432		-
	3.	No. querriedat their home	es	1409		
		No. of contacts totally extended the iClinic	•••	464		
	٥.	No. of P. T. found among	the contacts	6		
		P. T. I P. T. II	•••	6 14		
		P. T. III	•••	26		
	6	Total No. of P. T. case				
	0.	among the contacts	•••	46		
•			957			
	1				0.005	:1 .
	1.	Area covered by 6 divisi	ons	•••	2.885 sq. r	
	2.	Population catered to	W W.	• • •	1,79,303	•
	3.	(a) No. of new cases regi	stered			
		Males		•••	39	
		Females		•••	1,311	
		Children		•••	552	
	3.	(b) Daily average attend	ance of new ca	ses	6	
	4.	No. of P. T. cases—				
		P.T.	I P.T. II	P.T. III	Total	
		Women 11	53	261	325	
		Children				
	5.	No. of Non-Pulmonary T		ses	96	
	6.	No. of Non-Tubercular ca	ises	• • •	1,472	
	7.	(a) No. of old cases atten	ded in the Cli	nic—		
		Women	Children		Total	
		19,533	2,590		13,123	
	7.	(b) Daily average attend	ance of old ca	ses	37	
	8.	Total daily average atter	ndance	•••	43	

Area covered by the clinic, showing the number, names of the divisions, population of each division and total population.

	Division	Area in sq. miles	Population
1.	Pudupakkam	0.2238	28,672
2.	Thiruvateeswaranpet	1.0499	30,363
3.	Chepauk	0.2997	24,267
4.	Triplicane	0.1760	26,777
5.	Zambazaar	0.1391	25,044
6.	Meersahibpet	0.7000	44,180
	Total	2.5885	1,79,303

T. B. Clinic K. G. H.

Year	Area	No. of divisions	Population	No. of Old
11-9-50	2.8855 sq. miles	6	1,79,303	
1951	>>	**	"	6,124
1952	>>	>>	"	6,562
1953	"	,,	,	6,725
1954	22 1	>	>>	10,240
1955	,,	"	>>	13,892
1956	,	"	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	13,381
1957	,,	9 9	,,	13,123

People attended New	P.T. Cases	Sputum positive	Sputum negative	Deaths	Remarks.
1,544	79	44	35	42	
1,442	369	161	81	154	
2,323	390	115	33	160	
3,174	447	146	36	134	
3,669	525	146	136	131	
4,672	.583	80	265	89	
2,306	332	65	267	199	
1,902	325	83	100		

Contact Work—Coverage

*	1950	1951	1952	1953	1954	1955	1956	1957	Total
1. Patients picked up (open cases)	161	675	614	546	733	765	567	432	4,493
2. Houses vistited	161	675	614	546	733	⁷ 65	567	432	4,493
3. Number quer- ried at their homes.	468	1422	2035	1659	1989	1784	1513	1409	12,279
4. Number of contacts totally examined in the clinic.		763	1127	1315	1035	774	472	464	5,978

	1950	1951	1952	1953 - 1954	1955	1956	1957	Total
5. Number	found							
P.T.	I	•••	39	18	9	2	6	95
P. T . I	I	•••	17	21	30	13	14	110
P.T. II	I	•••	12	35	28	21	26	152
6. Total No of P.T. found the cont	among	•••	68	74	67	36	46	357

Report of B. C. G. Clinic, Ashok Vihar for the year 1957

The Corporation, B.C.G. team at Ashok Vihar carries out B.C.G. campaign during the year 1957 as in the previous years. The composition of the team is as follows—

- 1. Medical Officer ... Dr. S. Ramaswamy M.B. B.S.,
- 2. Staff Nurse ... Miss D. Isiah.

This Clinic at Ashok Vihar is open to the public from 8-30 a.m. to 10 a.m., after which the team start work at various Corporation Schools and other places.

Corporation Schools:—

Total Number of Mantoux tested	•••	2,525
Total Number of Positive Reactors		1,200
Total Number of BCG given	•••	606
Absentees for the Test	•••	400
Number of Schools visited	•••	12

Ashok Vihar:—

n nult

No. of Mantoux	tested	at	the BCG	Clinic	6,979
Total Number Po	ositive	Rea	ctors	•••	4,070
Total Number B	CG giv	en		, •••	953

T. B. Clinic, Pulianthope:—

₹

100

Total Number Mantoux tested.	•••	1,626
Total Number of Positive Reactors	•••	605
Total Number of BCG given	•••	331

0.0

. 17

PUBLIC HEALTH LABORATORY

This laboratory was started in 1946 with an aim of providing laboratory facilities to the medical institutions run by the Corporation, so as to make the diagnosis and treatment of diseases more scientific. Incidentally we started catering to the needs of the Private Medical Practitioners and their clientale. The charges levied are very nominal so as to be within the reach of even a poor man. This laboratory is intended for service and not for profit-making.

Statement No. 1, showing the progress of the laboratory

Year		Number of Samples	Receipts	
	1946	• • •	311	215 00
	1947	• • •	1,492	647 50
	1948	• • •	5,642	1,635 00
	1949	• • •	12,266	4,766 00
	1950	• • •	16,346	10,939 00
	. 1951	• • •	19,005	11,234 00
	1952	•••	33,089	11,560 87
	1953	•••	34,310	18,649 75
	1954	• • •	43,072	22,336 50
	1955	• • •	43,955	24,118 50
	1956	• • •	44,569	24,333 50
	1957	•••	47,368	22,409 25

As can be seen from the Statement No. 1, year after year, the laboratory is becoming increasingly popular and the number of samples tested are steadily increasing. It is gratifying to note that the staff of various Corporation medical institutions are evincing great interest and are taking full advantage of the facilities provided, and thereby treating their patients more scientifically. More than 60% of specimens tested are from the Corporation institutions. Once again the public and the Private Medical Practitioners are informed that this laboratory undertakes all clinical, Bacteriological works and the rates are very competative and the examination of sputum for A.F. Bauth and the throat-swab for C.Diphtheria are done free and they are requested to avail of this laboratory facilities provided by the Corporation.

Statement No. 2 showing the details of specimens received from the Private Practitioners, various clinics, Dispensaries, Child Welfare Centres of the Corporation of Madras, during the year.

Private Child Welfare Centres		Dispensaries	Clinics	Others	Total
20,638	14,572	10,558	1,147	453	47,368

This laboratory was run under the efficient care of Kumari Dr. S. Arokiadoss, M.D., D.G.O., who has recently returned after a 2-years study in the United States of America, where she has studied the laboratory service, and some special technique in Blood Pathology. She is ably assisted by Dr. M. Anantaram, M.B.B.S. and Dr. Alavandar, M.B.B.S. From the moment she returned from the States, she had been anxious to improve the technique here to place the laboratory on par with the foreign laboratories and she made a beginning in several fields and we hope that she will utilise what all she learnt and improve the laboratory still further.

Statement No. 3, showing the total number of various specimens received during the year.

Blood	Sputum	Urine	Motion	Other Smears	Total
34,078	1,479	2,175	9,414	222	47,368

During the year under review, the laboratory handled 47,368 specimens as against 44,569 the previous year with an increase of nearly 3,000 specimens. Statement No. 3 shows the nature of specimens and number in each. Of special interest of medio-social aspect is the samples of blood received for examination for syphilis. The Corporation has undertaken routine sampling of blood for pregnant women who attend the ante-natal clinics of the Child Welfare Scheme. For want of enough laboratory facilities, etc. only in 15 Centres such a scheme is working at present. In all 14,912 mothers had their bloods tested and of whom 773 were positive. Syphilis not only affects the termination of pregnancy, but the child born of syphilis parents will be far from the normal and it will be a great thing if this is detected before the child is born and the mother treated. With this idea this scheme is put into operation and the laboratory is equipped with latest field survey unit, donated by UNICEF in 1957 which is of great use in working out the scheme.

Statement No. 4, showing the details of Serological test conducted during the year for Private Practitioners, Child Welfare Centres and Veneral Clinic, Corporation of Madras.

No.	Sources	No. of Positive Cases.	No. of Negative Cases	No. of Quantita-tions	Total
1	Child Welfare Centres	773	13,362	777	14,912
2	Veneral Clinics	220	92,7	210	1,357
3	Private Practi- tioners	161	2,303	12	2,476

For Private Practitioners quantitative test is done only on their request.

SCHEDULED RATES FOR EXAMINATION OF SPECIMENS

Blood—ordinary examination counts, etc.	• • •	Re.	1/-
Blood—Agglutination test (Widal)		Rs.	2/-
Blood—Culture for Bacillus Typhus	• • •	Rs.	2/-
Blood—V.D.R.L. test	• • •	Rs.	2/-
Blood—Khan test	• • •	Rs.	2/-
Blood—quantitation V.D.R.L. test		Rs.	2/-
Blood—Sedimentation rate	• • •	Re.	1/-
Motion—for Culture	•••	Rs.	2/-
Motion—for Microscopic Examination		Re.	1/-
Urine—for qualitative examination	•••	Re.	1/-
Urine—for quantitative examination	• • •	Re.	1/-
Other smears for G.C. examination, etc.		Re.	1/-
Skin Clipping smears for Hansens	• • •	Re.	1/-

PUBLIC ANALYST'S LABORATORY

The number of samples analysed in the Public Analyst's Laboratory, Corporation of Madras during the year 1957 was 6,689 as against 5,746 in 1956. Among these samples, the samples analysed under the Prevention of Food Adulteration Act, 1954 numbered 6,190 as against 5,270 in 1956.

Of the 6,190 samples analysed under the Prevention Food of Adulteration Act, 1954, 4,178 samples were genuine and the remaining 2,102 samples were found to be adultered. Samples for the year 1957 was 32.5 against 32.7 in 1956.

The samples consisted of milk, ghee, gingelly oil, groundnut oil, cocoanut oil, coffee powder, tea, ghee substitutes, turmeric, arrowroot, honey and other articles. A statement of the samples analysed in 1957 and in the five previous years is given in the Appendix (Food Analysis—Statement No. 1). A graph showing the number of samples analysed and the number of samples adulterated each year from 1933 is also appended to this report.

It would be seen from Statement No. 1 that the percentage of adulterated samples after reaching a peak figure of 54.8 in 1952 has been steadily declining. The Central Prevention of Food Adulteration Act came into force on 1st June 1955 and therefore 1956 was the first year in which the new Act was operative for a whole year. The figures for the percentages of adulteration for the three years 1954, 1955 and 1956 are therefore of special interest, the figures being 45.5, 40.7 and 32.7 respectively. Due to the deterrent punishment prescribed under the new Act, it was to be expected that there would be some immediate improvement in the position regarding the sale of adulterated food. The figures recorded have shown that such expectation was fully justified. But the year 1957 has not recorded a further improvement upon 1956, as the percentage of adulterated sample in 1957 was practically the same as that in 1956.

The percentage of adulteration in 1957 was 32.5 as against 32.7 in 1956. Though adulteration of food during 1957 was much less than during the period 1950 to 1955, the figure of 32.5 should still be considered high and therefore measures against food adulteration should be tightened

up still further so that this great social evil is completely eradicated within the shortest possible time.

Milk is the most perfect of foods and is also most easily adultered. Prevention of adulteration of milk is by far the most important duty for Public Health Point of view. It is an extremely difficult task to control the innumerable itinerant milk vendors of the City. The only remedy is to license the individual milk man and to promote the formation of co-operative milk supply societies, which can be more easily controlled by the Corporation. A scheme is being worked out to achieve this object.

44.5 per cent of the milk samples were adulterated in 1957 against 42.1 in 1956. Though a record number of milk samples were analysed during the year under report, adulteration of milk has not shown the anticipated decrease in 1957. So long as the trade remains in the hands of small vendors and so long as the fines imposed by the Magistrates are not deterrent, adulteration of milk cannot record any appreciable decline.

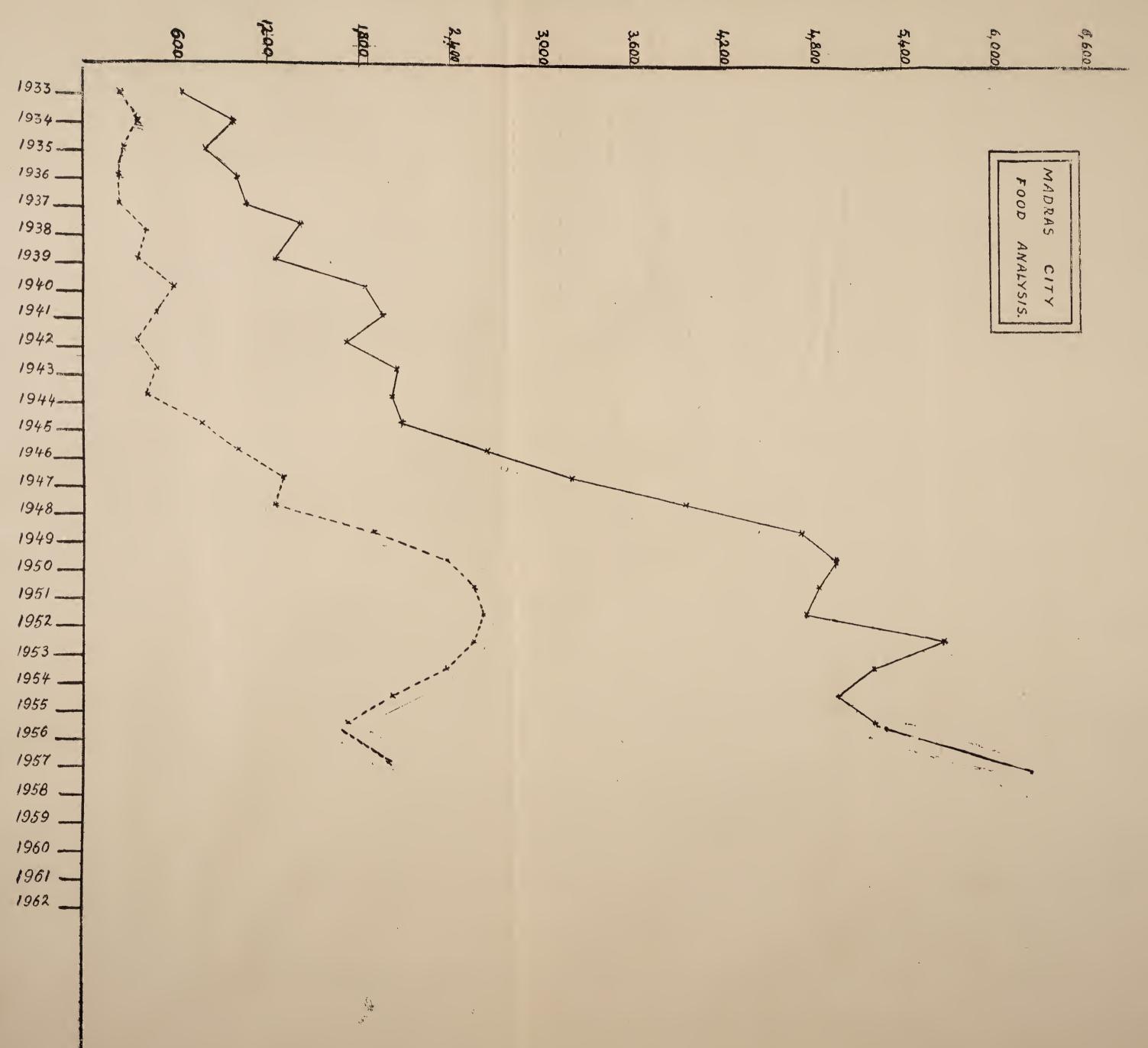
The percentage of adulteration of butter in 1957 was lower than in 1956 – the respective figures being 18.9 and 24.8. There has been a considerable fall in the adulteration of ghee during the year under report, the percentages of adulteration of this article in 1957 and in 1956 being 5.0 and 10.4 respectively. The adulteration of gingelly oil showed an increase during the year 1957, the percentage of adulteration in 1957 being 30.8 against 21.5 in the previous year. The adulteration of groundnut oil, which had always remained low, showed an increase during the year under report, the percentage of adulteration in 1957 and 1956 being 12:3 and 2:6 respectively. There was not a single adulterated sample of cocoanut oil during 1957. It is a matter for gratification that this fine edible oil is now available to the citizens of Madras in a pure state, especially when it is recalled that only a few years ago, cocoanut oil was adulterated not only with groundnut oil but also with the mineral oil known as White Oil. The adulteration of coffee powder has also shown a considerable decrease during the year under report, the percentage of adulteration being 10.6 against 24.6 in 1956. Tea had continued to be 100 per cent genuine for a number of years and even now continues to be so, but 2.0 per cent of the samples were reported as adulterated as in these samples the tea though genuine was artificially coloured with an orange red coal-tar dye. The colouring of turmeric with lead chromate has shown a decrease during 1957 as evidenced by the fact that only 6 out of 37 samples of turmeric contained lead in excess of the prescribed limit, as against 12 out of 43 samples in 1956. The analysis of samples of arrowroot was continued during the year under report. The description of Arrowroot without qualification should mean only Maranta starch, but an amendment to the Prevention of Food Adulteration Rules has extended the definition of of Arrowroot to inculde also Curcuma starch. It would still be an offence to sell Tapioca Starch (Manihot utilissima) as Arrowroot. Samples of Honey were continued to be taken during the year under report and out of 28 samples analysed, 11 proved to be adulterated.

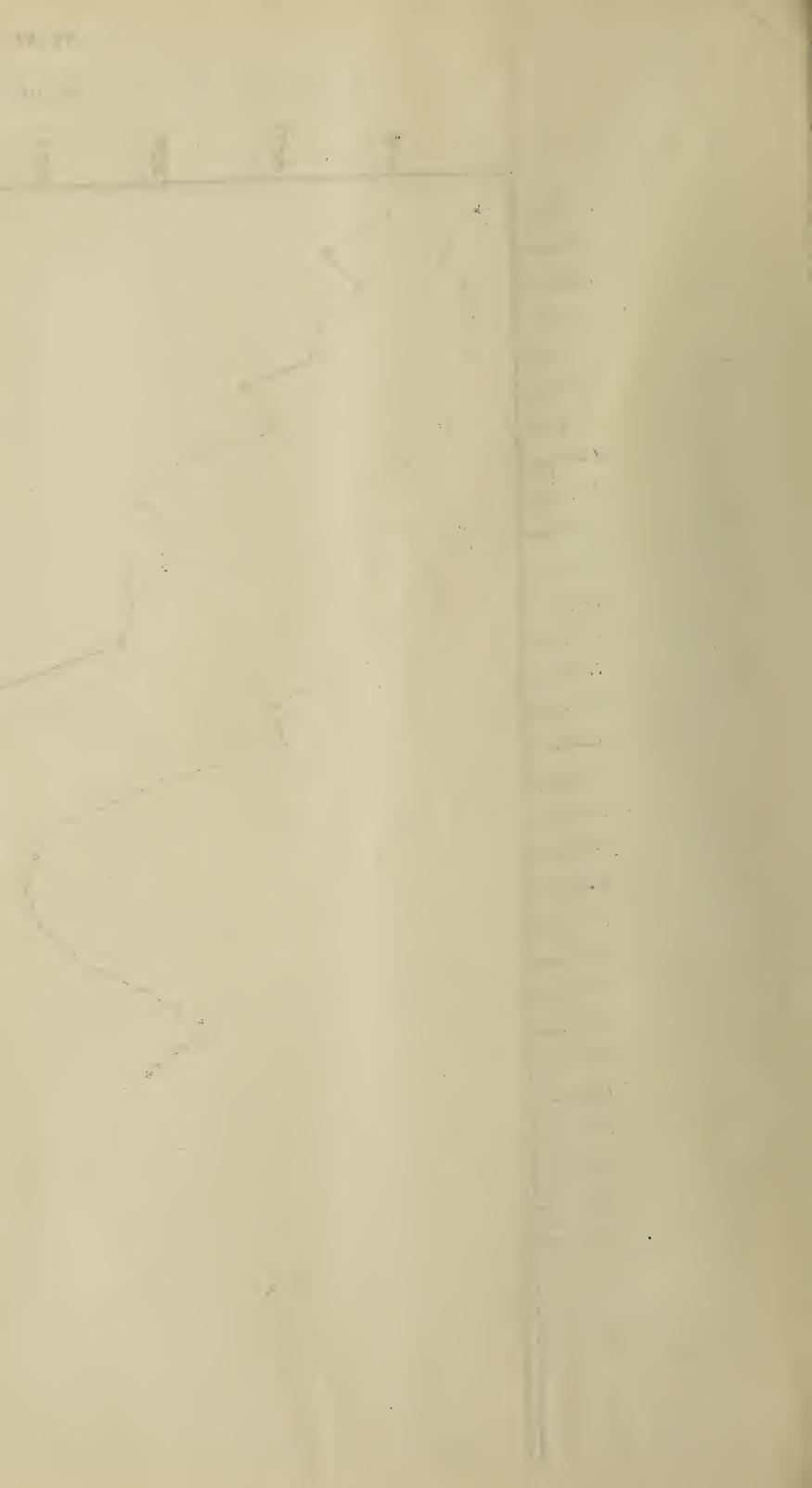
The details regarding the various articles of food analysed during the year under report are given below:

Milk:—3,554 samples of milk were analysed, of these 1,594 samples were cow's milk, 1,275 samples were buffalo's milk, 642 samples were sold under the description of Mixture of Cow's and Buffallo's Milk, 36 samples were described as Milk without the qualification of cow's or buffalo's, 4 samples were described as Powder Milk, 2 samples were described as Toned Milk and one sample was described as Reconstituted Milk.

Of the 1,594 samples of cow's milk, 784 were genuine and 810 were adulterated. Among the adulterated samples, 568 contained added water ranging from 3 to 90 per cent. There was deficiency in fat in 107 samples to the extent of from 20 to 100 per cent and 135 samples were deficient in

Nº OF SAMPLES FOUND ADULTERATED --





fat in addition to containing added water. The average values of fat and solids-not-fat for the 784 genuine samples of cow's milk were 4.9 per cent and 9.2 per cent respectively as against the average values 5.0 per cent and 9.1 per cent solids-not-fat in 1956.

Of the 1,275 samples of buffalo's milk, 807 were genuine and 468 were adulterated. Among the the adulterated samples 343 samples contained added water ranging from 3 to 76 per cent, 67 samples were deficient in fat to the extent of from 20 to 100 per cent and 58 samples were deficient in fat besides containing added water. The average values of fat and solids-not-fat for 807 genuine samples of buffalo's milk were 7·1 and 9·8 per cent respectively as against the average values of 6·9 per cent fat and 9·7 per cent solides-not-fat in 1956.

Among the 642 samples of mixture of cow's and buffalo's milk 369 were genuine and 273 were adulterated. Among the adulterated samples, 234 contained added water ranging from 4 to 42 per cent. 15 samples were deficient in fat to the extent from 20 to 89 per cent and 24 samples were deficient in fat besides containing added water.

36 samples were described as Milk without any qualification. Under the Prevention of Food Adulteration Rules, 1955 the standards of buffalo's milk are applicable to such samples. 12 samples were genuine, and 24 were adulterated. 19 of the adulterated samples contained added water ranging from 5 to 40 per cent, 1 sample was difficient in fat to the extent of 76 per cent and 4 samples were difficient in fat besides containing added water.

4 samples were described as Powder Milk, 2 as Toned Milk and 1 as Reconstituted Milk making a total of 7 samples. All seven were adulterated. One was deficient in fat and the other six were deficient in both fat and solids-not-fat.

Among the 3,547 milk samples of all categories except the toned and reconstituted milks dealt with in the previous paragraphs 1,385 samples contained added water and the average content of added water in these 1,385 samples was 19 per cent as against 18 per cent in the year 1956.

Butter:—497 samples were analysed, of which 403 samples were genuine and 94 were adulterated 82 of the adulterated samples the water content ranged from 17.5 to 72.8 per cent, the prescribed maximum limit for water being 16 per cent under the provisions of the Prevention of Food Adulteration Act, 1954. 29 of the 82 adulterated samples also contained fat other than milk fat besides containing excess water. The remaining 12 adulterated samples of butter had a water content within the prescribed maximum limit, but however, contained foreign fat. The extent of adulteration with Foreign Fat among the 41 samples of butter which contained Foreign Fat ranged from 7 to 58 per cent, the average extent of adulteration being 23 per cent against 28 per cent in 1956.

Ghee:—725 samples were analysed. Of these, 36 samples were adulterated with fat other than milk-fat, the common foreign fat used for the adulteration of these samples being Vanaspathi (mostly hydrogenated groundnut oil). The extent of adulteration ranged from 11 to 97 per cent. The average admixture or foreign fat in the adulterated samples was 48 per cent as against 52 per cent in 1956.

Gingely Oil:—751 samples were analysed, of which 201 were adulterated with groundnut oil to the extent of 10 to 80 per cent, 3 samples were adulterated with Niger Seed Oil to the extent of 80, 85 and 95 per cent and 27 samples were adulterated with both groundnut oil and Niger Seed Oil, the extent of adulteration ranging from 70 to 100 per cent. Niger Seed Oil as an adulterent of Gingely Oil is a recent introduction in Madras City. Niger Seed Oil is an edible oil derived from the black

achones of Guizotia abyssinica of the Compositae family. The seed is known in Tamil as Uchellu (உச்சென்ளு)

Groundnut Oil:—73 samples were analysed, of which 9 samples were reported as adulterated and they contained Gingelly Oil to the extent of from 25 to 100 per cent.

Cocoanut Oil:—101 samples were analysed and all the samples were genuine.

Coffee Powder:—245 samples were analysed. One of these samples was described as Dilkush Coffee Tablets with Chicory. The sample of tablets was reported genuine as Chicory had been correctly declared on the label. Of the 244 samples of Coffee Powder, 26 were adulterated. Of the 26 adulterated samples, 3 samples contained Preparation of Bengalgram to the extent of 10, 15 and 50 per cent, 9 samples contained preparation of Data Seed to the extent of 10 to 55 per eent, 11 samples contained preparation of mixture of Bengal Gram and Date Seed to the extent of 10 to 85 per cent, one sample contained 45 per cent of mixture of Pea and Date Seed, one sample contained 25 per cent of mixture of Chicory and Date Seed, and one sample contained 20 per cent of mixture of Chicory, Bengal Gram and Date Seed.

Tea:—98 samples were analysed and 2 of them were reported as adulterated as they contained an orange-red coal-tar dye as mentioned earlier in this report.

Ghee Substitutes:—12 samples were analysed, of which 2 samples were reported as adulterated as they consisted of mixture of Ghee and Vanaspathi and the remaining 19 samples consisted entirely of Vanaspathi.

Other Articles:—There were 134 samples under this head. These consisted of 13 samples of Thoovar Dhall, 37 samples of Turmeric, 32 samples of Arrowroot, 28 samples of Honey, 23 samples of Maida and one sample of Wheat Flour.

Out of these 13 samples of Thoovar Dhall, 8 samples were reported as adulterated as they contained a yellow coal-tar colour.

Of the 37 samples of Turmeric, 6 were reported as adulterated as they contained lead to the extent of 15 to 150 parts of lead per million parts of the sample (Maximum limit 2.5 parts per million). 32 samples of Arrowroot were analysed. According to the latest amendment to the definition of Arrowroot given in the Prevention of Food Adulteration Rules, Arrowroot should be the starch derived from either Maranta Arundinacca or Curcuma Angustifolia. 18 of the samples consisted of Maranta Starch and 9 of Curcuma Starch and these 27 were reported as genuine. 5 samples consisted of 100 per cent Tapioca Starch (Manihot utilissima) and were reported as adulterated.

The samples of Maida and Wheat Flour (24 samples) consisted entirely of Wheat Flour and all samples were genine.

28 samples of Honey were analysed, of which 11 were reported as adulterated. Of these 11 samples, one sample contained excess water and excess cane sugar, 6 samples contained Artificial Invert Sugar and coal-tar colour, one sample contained excess water, Artificial Invert Sugar and coal-tar colour and one sample contained excess cane sugar, artificial invert sugar and coal-tar colour.

Besides the formal samples dealt with above which were taken under the Prevention of Food Adulteration Act, 1954, 499 miscellaneous

samples were examined in the laboratory during the year under report. Of these, 357 were samples of milk taken informally from the Madras Co-operative Milk Supply Union in order to check the purity of their milk supply before the milk was distributed to the City. There were in addition to the formal samples taken regularly from the sales and depots and delivery boys of the Union, which are included among the formal samples dealt with in the earlier part of this report.

A statement of the miscellaneous samples is given below:—

Nature of samples.

Result of Analysis.

357 samples of milk from the Madras Co-operative Milk Supply Union

1 sample of milk from Health Department.

16 samples of skimmed milk powder from Health Department.

1 sample of Butter from Health Department.

2 samples of Gingelly Oil from Health Department.

2 samples of Curry Powder from Health Department.

4 samples of Coffee Powder from Health Department.

2 samples of Ghee from Health Department.

18 samples of Boiled Rice from Health Department.

16 samples of Thoovar Dhall from Health Department.

1 sample of vinegar from Health Department.

2 samples of Arrowroot Health from Department.

2 samples of Barley from Health Depart-Department.

1 sample of Ginger from Health Department.

4 samples of Castor Oil from Health Department.

of Transformer Oil from 64 samples Electrical Department.

1 sample D. D. T. from Health Depart- Consisted of 100 % D. D. T. ment.

5 samples of food from private parties.

All Genuine.

Genuine.

All reported as unfit for human consumption.

Adulterated. (53.6 % excess water and 8% Foreign Fat)

Both genuine.

No excess lead.

All genuine.

One genuine and one adulterated (41% Foreign Fat)

Report on quality was made.

12 samples contained yellow coal-tar colour.

Not up to prescribed standard.

Both adulterated. (100%Tapioca Starch in both).

infested with One sample insects.

Genuine.

Two samples not up to stand-

Reports on the inorganic and acidities organic made.

Reports on the genuineness or otherwise were made.

A Tabular statement on the action taken on the adulterated samples of 1957 and those of 1956 pending disposal on 1st January, 1957 is given in the Appendix (Food Analysis-statement No. II).

The number of samples reported as adulterated during the year under report was 2,202. Out of these, 95 samples were only very slightly adulterated and no prosecutions were instituted in these cases. Prosecutions of vendors were instituted in respect of the remaining 1,917 adulterated samples.

Of the 1,917 prosecutions instituted, convictions were obtained in 808 cases. There were three acquitals and one withdrawal of prosecution and the remaining, 1,105 cases were pending disposal on 31st December 1957. 529 convictions were obtained among the cases relating to the period prior to 1st January 1957.

The total number of convictions for the sale of adulterated articles of food in 1957 was 1,337 as against 1,037 in 1956. The amount of fines imposed in 1957 was Rs. 48,210 against Rs. 52,469 in 1956. The average fine conviction in 1957 was Rs. 36 against Rs. 51 in 1956. The maximum and the minimum fines imposed in the year 1957 were Rs. 250/- and Rs. 5/respectively. Among the convictions of the year 1957, in one case no fine was imposed but the vendor was sentenced to a term of imprisonment for three months.

During the year 1957, the staff of Public Analyst's Laboratory consisted of the following:—

Public Analyst: Sri Venkatachalam.

Senior Assistant. Sri S. Sundaram, M.A.,

Grade I Junior Assistants. 1. Sri V. V. Ramana Rao, M.Sc.,

2. Sri M. Ramalingam, M.Sc.,

Grade II Junior Assistants. 1. Sri C. Rajaganapathy, B.Sc.

2. Sri R. Mohanrajan, B,Sc.

3. Sri C. Sambandam, B.Sc.

During the past several years, I have been pleading for sufficiently deterrent fines in food adulteration cases. If our campaign against the food adulterator has to succeed, the Magistrate should co-operate with the administration by imposing deterrent fines. No doubt, the Prevention of Food Adulteration Act, 1954 has prescribed heavy penalties including imprisonment for food adulteration cases. But while on paper the penalties prescribed are frightening, in actual practice the punishments inflicted are not in any way commensurate with the intentions of the Parliament.

The Act was enforced from 1st June 1958 and the immediate effect was a spurt in penalties. The figures of average fine per conviction during the three years 1954, 1955 and 1956 are highly significant, the average fine being Rs. 20/- Rs. 36/- and Rs. 51/- respectively. 1954 was a period under the old Act. When the new Act came into force, heavier fines with the result that during 1956 the first complete year under the new Act the average fine was Rs. 51/-. But unfortunately during 1957 there has been a precipitous fall in the fines, the average fine being only Rs. 36/- as against Rs. 51/- in 1956. In fact, during 1957 a good many vendors have been let off by the Magistrates with a mere admonition.

In this connection, two points must be clearly remembered. There is no use of prescribing deterrent punishment for second and subsequent offences alone, as the large majority of cases are first offences and even in the case of second or subsequent offences, due to the various factors it would be difficult to prove the fact of the second or subsequent offence. The second point is a minimum penalty should be statutorily prescribed

that no offender can get away with better punishment. It is therefore necessary that the Prevention of Food Adulteration Act, 1954 should be suitably amended to the effect that a minimum penalty as indicated is prescribed for first offence under the Act. I am more than ever convinced that the sine qua non for the success of the measures taken against the food adulterator is an optimum minimum fine of the even of at least Rs. 50/- first offence Pending the amendment it is hoped that the Magistrates would extend to us their help and co-operation in eradicating this great social evil.

THE WATER ANALYST'S LABORATORY

Introduction:—The inauguration of the 10 million gallon rapid sand filter plant on 12—11—57 by Dr. Radhakrishnan, Vice President of India, marked the completion of the first stage in the scheme for treating 40 million gallons per day. The salient features of the new system of water treatment are coagulation by chemical treatment, floceulation, clarification and mechanical filtration. The success of Rapid Gravity Filtration is, to a large extent, dependent upon the day to day analysis of samples since an efficient control of the purification process should be guided by the results of analysis. The role of the analytical chemist is as important as that of the Engineer-in-charge in any modern water works.

A certain type of fresh water leeches most probably belonging to the species "Barbronia Weberi" and the so called blood worms (Chironomous) were found in the distributed water in a number of places during January and February. The prevalence of these leeches and worms was subsequently brought under control by intensive sterlisation of the affected mains.

The results of water analysis during the year under report did not vary markedly from those of the previous year. The dose of chlorine to the filtered water was nearly double than that applied to the raw water. The Chlorinated raw water after passing through the sand filters deteriorated chemically to a slight extent and bacteriologically to a very large extent. Considerable amounts of H-S were produced in the beds. The distributed water was far from satisfactory bacteriologically and it was more so in the low pressure areas where the percentage of first class samples ranged between 3 and 52. Smell of H₂S in the distribution system was generally absent as a result of sterlisation and frequent scouring of the water mains.

Scientific:—Water for the City is drawn from three main systems:—
(A) The Kortalayar River System, (B) The infiltration gallery wells at Saidapet and Sembium, (C) The shallow wells at Adyar, Kodambakkam and Saidapet. The changes in the physical, chemical and bacteriological conditions of the water in each of these three systems during the year are briefly recorded below:

- (A) The Kortalayar River System:—The river Kortalayar is dammed at Poondi 32 miles away from the City and Satyamoorthi Sagar has been formed for storing the flood discharges. The stored water is let down through the river bed and another channel (called the upper supply channel) into the Sholavaram Reservoir and from the latter, water is let down through the lower supply channel into the Red Hills Reservoir, which served as the chief source of raw water supply to the Water Works at Kilpauk. The three sources were visited almost once a month during the year for collection of samples and the result of their examination are shown in the appended Statistics Supplements Nos. 33 to 35.
- (a) The sources of raw water supply:—1. The Satyamurthi Sagar (Statisties Supplement No. 32):—The total yearly rainfall at Poondi was 38.00" as against 52.44" last year. The highest rainfall of 10.10" was

recorded in October. The average reservoir level varied from a minimum of 129.71; in October to a maximum of 137.67' in January.

Statistics Supplement No. 33:—The water was slightly greenish during the major part of the year and whitish in January. The temperature of water varied from 28.0° C to 32.0° C.

Chemically, the figure for total solids varied from a minimum of 27·2 parts in November to a maximum of 56·0 parts per 100,000 in October' pH from a minimum of 8·0 in November to a maximum of 8·4 during the major part of the year; dissolved Oxygen from a minimum of 4·2 cc/L in November to a maximum of 7·14 cc./L in September; Tidy's organic matter from a minimum of 0·144 in January to a maximum of 0·406 parts per 100,000 in October; Albuminoid Nitrogen from a minimum of 0·004 in April to a maximum of 0·112 p.p.ht. in July, and the total hardness varied from a minimum of 7·0 in September and November to a maximum of 10·2 p.p.ht. in February. Nitrites and Nitrates were generally absent. Phosphates were found to vary from nil to 0·002 p.p.ht. and Silicates between 0·4 and 0·8 p.p.ht. Iron was found to vary from trace to 0·03 p.p.ht.

Coliform organisms were present in volumes varying from 1 cc. to 5 cc.

2. The Sholavaram Reservoir (Statistics Supplement No. 34) The total rainfall recorded in the catchment area of this reservoir was 37.25" as against 46.55" in the preceding year. The monthly average water level varied from minimum of 54.89' in October to a maximum of 61.91' in January. There was practically no rainfall from January to May.

The water was whitish in January and October and slightly yellowish or greenish during the other months. The temperature of the water varied from a minimum of 28.0° C in November to a maximum of 32.0° C in April and May.

Chemically, the value of the total solids varied from a minimum of 30.4 parts in January to a maximum of 47.6 parts per 100,000 in October; pH varied from a minimum of 8.0 in November to a maximum of 8.5 in May and June; dissolved oxygen from a minimum of 5.94 cc/L in November to a maximum of 10.9 cc/L in March; chlorides from 3.5 to 7.3 p.p.ht. Tidy's organic matter from 0.157 in January to 0.278 p.p.ht. in July; Nitrates and Nitrites were generally absent. Phosphates were found to vary from nil to 0.002 p.p.ht. Silicates varied from 0.4 to 0.6 p.p.ht. and the total hardness from 7.8 to 9.6 p.p.ht.

Coliform organisms were present in volumes varying from 1 cc to 5 cc.

3. Red Hills Reservoir (Statistics Supplement No. 35).

The total annual rainfall in the catchment area of the reservoir was 35.71" as against 42.21" in the previous year. A maximum average rainfall of 13.58" was recorded in November. There was no rain from January to April. The monthly average water level varied from a minimum 39.99' in August to a maximum of 45.76' in January and February.

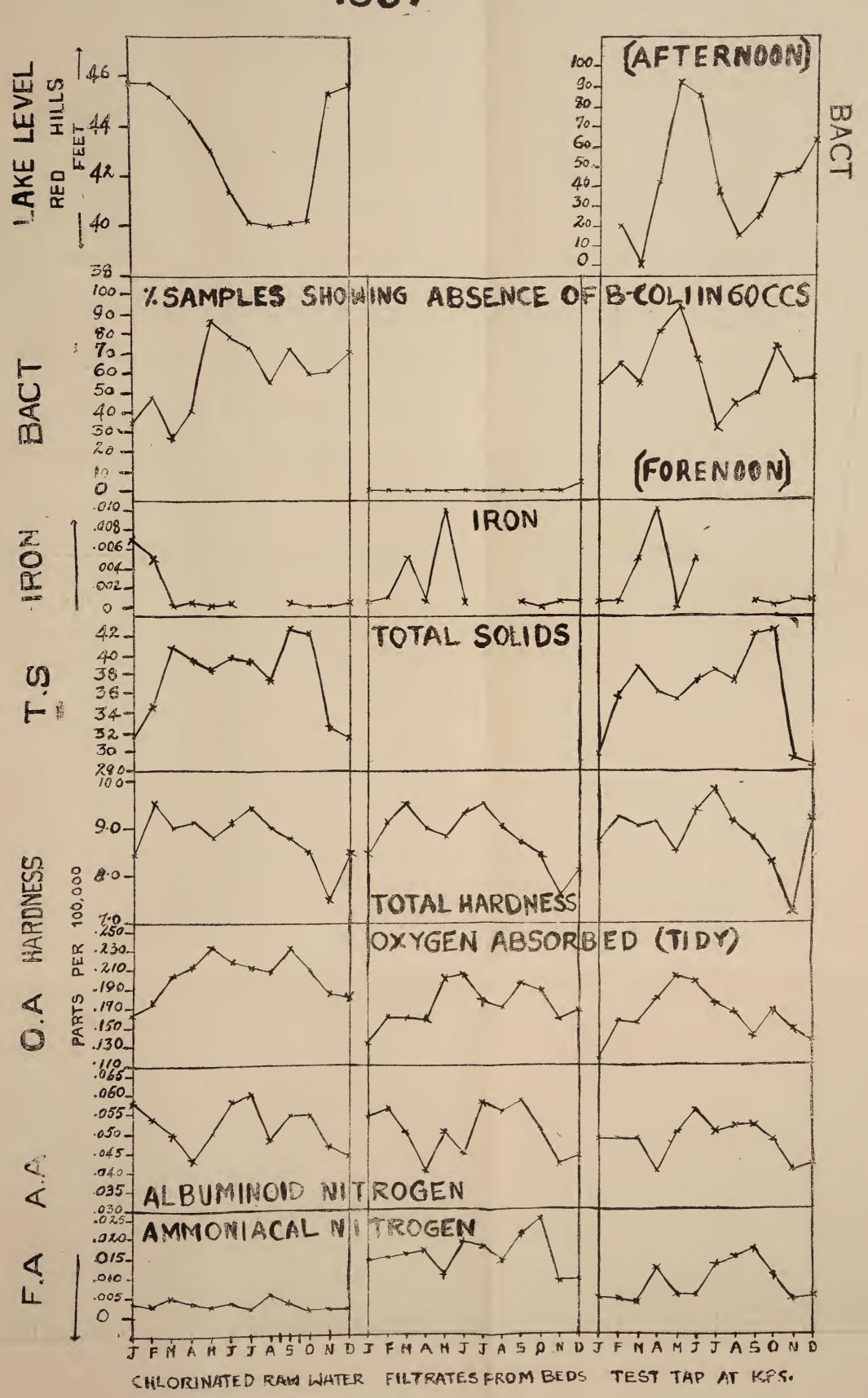
The colour of the water was slightly yellowish or whitish during the major part of the year and slightly greenish during a few months.

Chemically, the total solids varied from a minimum of 30.0 parts in November to a maximum of 51.6 p.p.ht. in October. pH varied from 8.1 in January to 8.5 in October; dissolved oxygen from a minimum of 5.6 cc/L

CHARTI

SHOWING CITY WATER SUPPLY: HEAD WORKS (PHYSICO-CHEMICAL & BACTERIOLOGICAL CONDITIONS)





THE STATE OF THE PARTY OF THE P 189 in July to a maximum of 7.35 cc/L in June; Chlorides varied from a minimum 5.2 parts in November to 7.3 p.p.ht. in June. Tidy's organic matter varied from 0.174 parts in January to 0.275 p.p.ht. in May. Albuminoid Nitrogen from 0.005 parts to 0.080 p.p.ht. Nitrites and Nitrates were generally absent. Phosphates were found to vary from nil to 0.002 p.p.ht. Iron varied between nil and 0.015 p.p.ht. and the total hardness varied from a minimum of 7.2 parts in November to maximum of 10.2 p.p.ht. in March.

Coliform organisms were found in volumes varying from 1 cc. to 10 cc.

(b) Chlorinated raw water at the Kilpauk end (Statistics Supplement No. 36):—The range of variations of some of the important results is given below:—

		Yearly range parts per 100,000
pH	•••	8·1 to 8·4
Chlorides	• • •	4.9 to 7.3
Total hardness.	•••	7.5 to 9.5
Organic Matter:—		
(a) Oxygen absorbed (Tidy)	•••	0.161 to 0.235
(b) Albuminoid Nitrogen	•••	0.043 to 0.060
Iron	• • •	nil to 0.007
Average dose of Chlorine (p.p.m.)	•••	0.04 to 3.00

The percentage of samples showing absence of B.Coli in 60 c. c. varied from 17 to 88 indicating that the process of prechlorination was not uniformly efficient.

(c) Sand filters and filtration (Statistics Supplement No. 37):— The range of variations of some of the important results is given below:

7)				early range parts per 100,000.
Ammoniacal Nitrogen	• • •	• • •	0.008	to 0.025
Albuminoid Nitrogen	• • •	•••	0.040	to 0.058
Oxygen absorbed (Tidy)	• • •	•••	0.132	to 0.205
Total hardness	• • •		7.6	to 9.5
Iron	•••	•••	nil	to 0.01
Dose of Chlorine (p.p.m)	• • •	• • •	1.36	to 3.50

% sample showing absence of B. Coli in 60 c.c. varied from 0 to 5.

Inspite of the application of a fairly high dose of chlorine to the raw water feeding the sand filters, samples of the filtrates from the individual beds were of poor bacteriological quality.

(d) Test tap (Statistics Supplement No. 38):—The range of variations of some of the important results are given below:—

			Ye	early range
]	parts per
				100,000.
Ammoniacal Nitrogen	•••	•••	0.003	to 0.017
Albuminoid Nitrogen	•••	•••	0.040	to 0.056
Oxygen absorbed (Tidy)		•••	0.117	to 0.201
Iron	•••	•••	nil	to 0.010
% sample showing abs	ence of B.	Coli in 60	c.c. vo	lumes
		Foren	oon 32	2 to 96
		Aftern	oon (0 to 92

Bacteriological samples from the test tap at K.P.S. were collected twice a day and the bacterial quality of the test tap water was not uniformly satisfactory. The bacteriological quality of the test tap samples collected in the afternoon was generally poorer than that of the samples collected in the forenoon.

Statement No. IX-Contains the chlorination data.

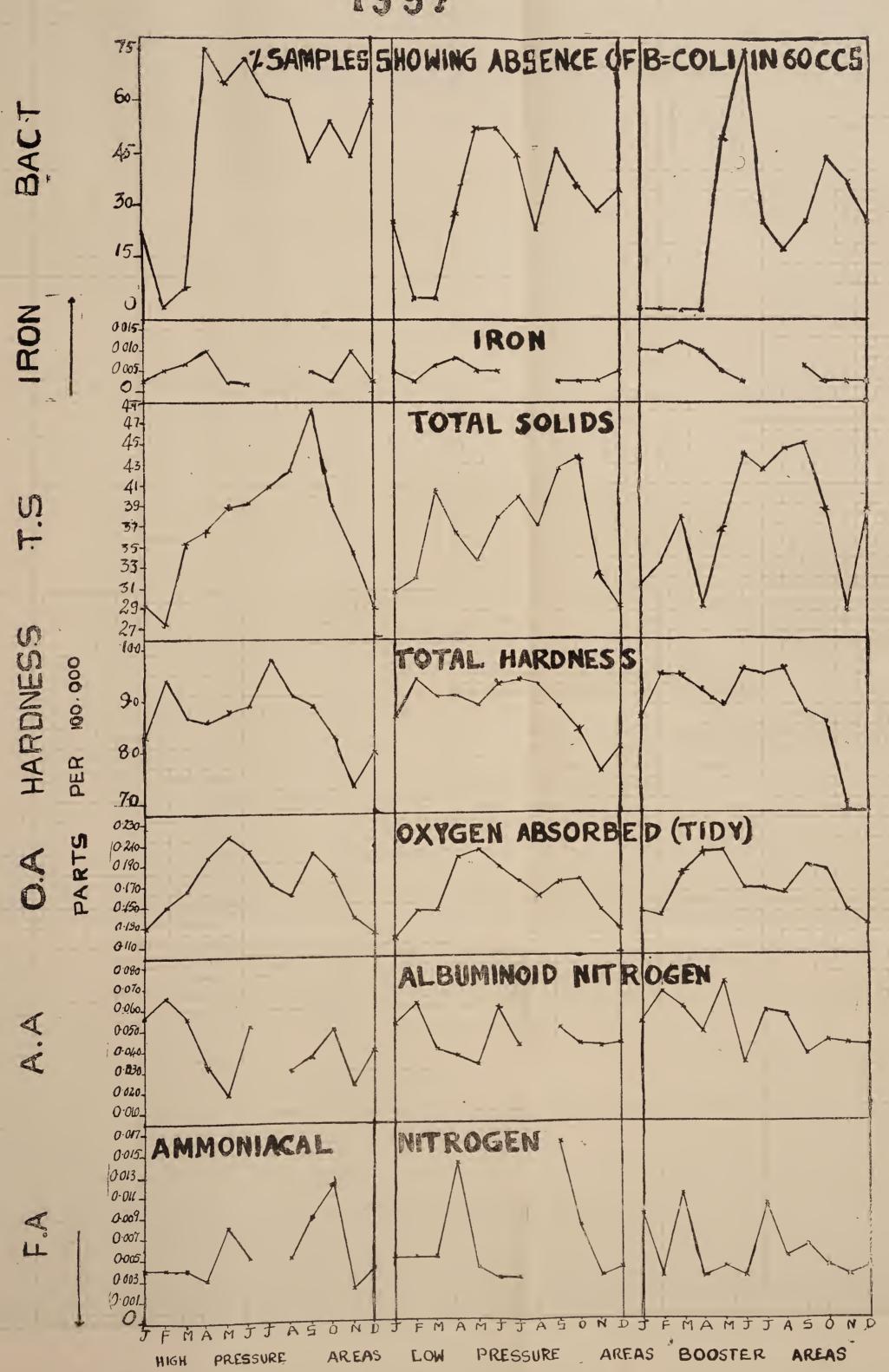
(a) Distribution system (Statistics Supplements Nos. 40 & 41):—

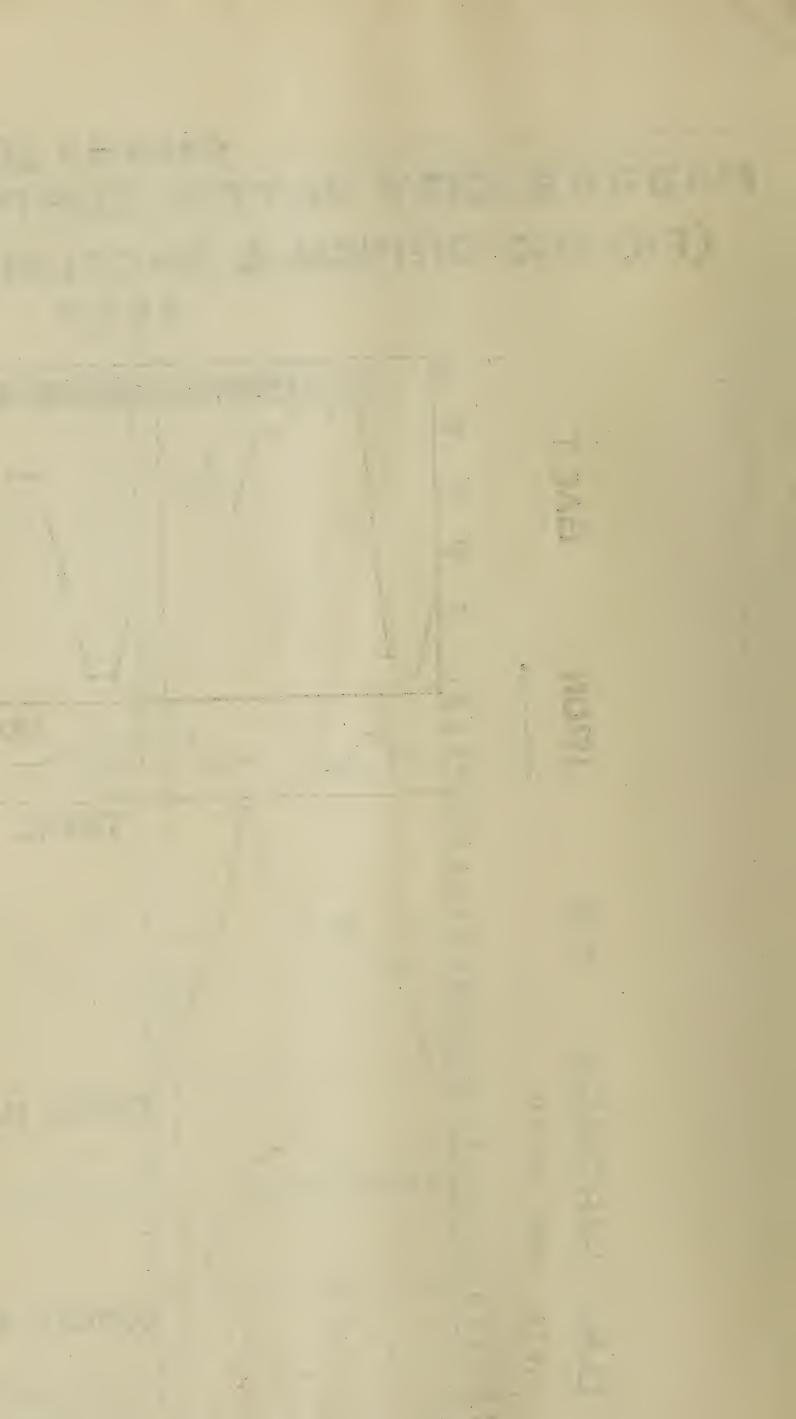
	H. P	. areas	L. P	. areas	Booster areas
Ammoniacal Nitrogen	0.002	to 0.012	0.003	to 0.016	0.003 to 0.011
Albuminoid Nitrogen	0.019	to 0.066	0.034	to 0.063	0.033 to 0.072
Oxygen absorbed Tidy	0.123	to 0.218	0.118	to 0·205	0·130 to 0·203
Total Hard- ness	7.3	to 9.8	7.6	to 9·4	7·0 to 9·6
Iron	Trace	to 0.01	Trace	e to 0.008	M.Tr. to 0.012
% samples show	wing al	bsence of B.	Coli in	60 c. c.	
	0	to 75	3	to 52	0 to 75

The bacteriological quality of the water undergoes marked deterioration during transit from head works to the distribution system.

MADRAS CITY WATER SUPPLY: DISTRIBUTION SYSTEM (PHYSICO-CHEMICAL & BACTERIOLOGICAL ASPECTS)

1957





(b) The infiltration gallary wells at Sembium and Saidapet (Statistics Supplement No. 42.):—

		Yearly range in parts per 100,000								
					um Sai		idapet			
Ammoniacal Ni	trogen	• • •	Nil	to	0.011	Nil	to	0.004		
Albuminoid Nits	rogen	• • •	0.003	to	0.072	0.002	to	0.006		
Oxygen absorbe	d (Tidy)	•••	0.016	to	0.123	0.024	to	0.098		
рН	•••	• • •	6.8	to	7.1	6.9	to	7.2		
Total hardness	•••	•••	14.2	to	24.5	17.0	to	25.0		
Total solids	•••	•••	46.2	to	80.4	40.8	to	66.0		
Iron	•••	•••	0.04	to	0.20	Nil	to	0.04		

Statement No. 43 relating to water analysis in the Appendix reveals that the bacteriological quality of the water drawn from the distribution systems in Sembium and Saidapet was generally good.

(c) The shallow wells used as sources of water supply in the City (Statistics Supplements Nos. 44 to 49.)

The water from the well in Richard's Park, Saidapet was chlorinated and used for supplying public fountains in Guindy. The water from the two wells located at Urur in Adyar was pumped into the reservoir at Mandavalli, Mylapore, for supplying the new Gandhinagar Colony and other places at Adayar. The water from the shallow well, which is located in the United India Colony at Kodambakkam, was used for supplying public fountains in that area.

The water from the two wells at Saidapet and Kodambakkam was totally unfit for drinking purposes.

Samples were collected and analysed from the following eight wells. These wells are also used as sources of water supply in their respective areas. (Statistics Supplements Nos. 46 to 49.)

- 1. Well at Ganapathy Colony, Guindy,
- 2. Well oposite to Adam's Road, (Marina),
- 3. Well opposite to Wenlock Park (Marina),
- 4. Well opposite to Sunkuvar Street, (Marina),
- 5. Well opposite to Lloyds Road, (Marina),
- 6. Well in Nagappier Street, Triplicane,
- 7. Well in Chellappillayar Koil Street, Triplicane and
- 8. Well at Kottur, Adayar.

The water from each of the above wells was chlorinated and supplied. The chemical quality of the above wells excepting Nos. 1 and 2 was generally satisfactory.

(d) Sterilisation of water mains for the removal of growths and deposits in the City distributory System (Statistics Supplement No. 50).

		Plant 1	Plant 2.
1.	Total number of days when the mains were sterilised.	201	30
2.	Quantity of chlorine used.	1,854·5 lbs	218·5 1bs
3.	Length of mains sterilised.	6 miles	7.5 furlongs
4.	Number of samples examined	220	Nil

During the year under report injection of chlorine was carried out mostly to eradicate leeches and worms in the water mains in various parts of the City and also as a precautionary measure against the prevalence of cholera in certain parts of the City. The results of sterilisation were very encouraging in regard to the mains infected with leeches, etc.

A second cholorine injecting plant was commissioned towards the end of the year to carry out this work on a wider scale.

The following were the effects of injection of chlorine into the distributory system.

- (a) Brown, flocculent pipe growths and deposits were dislodged from the sterilised portions of mains when scoured. These deposits consisted essentially of ferric oxide, organic matter and iron bacteria.
 - (b) An increase in the iron content immediately after sterilisation.
 - (c) Leeches and worms, if present, were immediately killed.

From the foregoing it is evident that the injection of chlorine has definite beneficial effect on the water mains but the incrustations in the pipe lines are several decades old and only repeated treatment can bring about the removal of the incrustation to an appreciable extent.

(e) A sum of Rs. 500 was realised by way of fees for analysis of private samples.

Staff:—Shri G. Devadoss, B.Sc., B.Sc., (Tech) Water Analyst, Messrs S. Nagarajan, B.S., C. N. Muruganathan, B.Sc., and S. Balasubramaniam, B.Sc., Assistant Water Analysts.

ASHOK VIHAR

Administration Report for the Year 1957

The Ashok Vihar, Health and Recreation Centre was started in 1948 solely with the object of providing preventive and curative health services together with recreational facilities to about 300 under privileged families residing in and around the nearby slums. Year after year the activities have been expanding and during the year following services were rendered by the Centre:—

- 1. Service to member families.
- 2. Service to people in the locality.
- 3. Service to people in the slums of the City.
- 4. Service to personnel in the Medical and Social fields.

1. Service to Member Families.

Families of the lower income group residing in and around the slums in close vicinity of the Centre enrolled themselves as members of the Centre on payment of a token monthly membership fee of Rs. 0.06.

Particulars of families are given below:—

No. of families on rolls on 1st January 1957 : 365

No. of families enrolled during the year : 72

No. of families removed during the year : 98

No. of families on rolls on 31—12—57 : 339

Classification of member families according to place of residence

Periamet	Periamet Slum	Chinthadripet	Chinthadripet Slum	Choolai	Choolai Slum	Other areas	Slums in Other areas
56	100	15	64	53	24	13	14

Slum families—202

Non-Slum families—137

Classification of families according to income

Income	Nil	Under Rs. 50	Rs. 51–100	Rs. 101–150	Rs. 151 and above
No. of families	27	149	136	15	12

Nature of Employment

Nature of employment	Unemployed	Unskilled	Skilled	Clerks	Teachers	Businessmen	Pensioners	Miscellaneous
No. of families	27	78	70	66	4	48	3	3

Classification of Families according to caste

Harijans	Hindus	A. Is.	Muslims	Indian Christians
152	126	27	22	12

Member families classified according to number of children in their families

No. of children	1	2	3	4	5	6	7	8	9	10	11
No. of families	70	78	64	52	28	21	7	4	2	•••	1

(Average of 3 children per family)

The social and economic conditions of these families have been very low and as a natural result their cultural and health standards have been equally low, yet one sees an attempt by these families to raise their social and economic levels, and the Centre has been helping and guiding them in their endeavours.

Health Check-up:—913 general, 197 dental and 288 eye and 83 check-ups were done during the year. As the Centre was without the Asst. Director for 4 months, the total number of health check-ups done were lower than that of the previous year. The Hony. E.N.T. Surgeon had gone out of the India for 5 months hence the number of E.N.T. check-ups were also much lower than that of last year.

Out of the 601 members re-examined 437 showed increase in weight, 138 reduction in weight and 26 stationary in weight.

It is gratifying to note that many members are beginning to realize the value of health check-up especially for their children. These periodic health check-ups have been useful in diagnosing diseases in their initial stages and many a disease that would have become serious were diagnosed and treated early, thus preventing the person from absentation from work, loss of daily wages, unnecessary worry and undue physical damage. Only about 5% of the persons examined showed no apparent defects.

The following defects and diseases were noted during the year at the time of the health check-ups among 913 members examined:—

ø		New	Members	Old Members
Deficiency diseases	• • •	•••	98	136
Nutritional Anaemia	•••		23	20
Round worm infestation	ı	•••	43	37
Influenza	•••	•••	10	51
Tubercular Infection	• • •	•••	5	9
Hansons	• • •	•••	2	4
Venereal Diseases	• • •	• • •	2	Nil
Inf. Hepatitis	• • •	•••	1	1
Filariasis	• • •	•••	Nil	3
Malaria	• • •	•••	**************************************	5
Typhoid	•••			5
Dysentery & Diarrhoea	•••	•••	6	10
Rh. Heart disease	•••	Ģ ● •	1	3
High Blood pressure	• • •	•••	2	3
Inf. Paralysis	•••	• • •	_	1
Epilepsy	•••	•••	1	1
Scabies	•••	•••	21	13
Tonsils & Adenoids	•••	•••	26	32
Middle Ear Disease	•••	•••	5	6
Refractive Error	• • •	•••	14	20
Hernia	•••	•••	2	4
Hydrocele	•••	•••	2	11
Pymshoea Alveoeasis	•••	•••	4	8
Eosinophilia	•••	•••		1
		Total	312	601

Number of members improved of their diseased condition:—

Def. Diseases	• • •	• • •	49
Nutritional Anaem	ia	• • •	17
Round Worm Infest	tation	• •	31
Influenza	• • •	• •	51
Tuberculosis	• • •	•••	8
Venereal Diseases	• • •	•••	2
Leprosy	• • •	•••	3
Rh. Heart Disease	• • •	• • •	2
Typhoid	• • •	•••	5
Scabies	• • •	• • •	10

Dysentery	• • •	•••	13
High Blood Pressu	ıre	•••	2
Filariasis	• • •	• • •	3
Malaria	•••	•••	5
Inf. Hepatitis	•••	•••	2
Eosinophilia	•••	•••	1°

Special treatment arranged at the Government Hospitals is listed below.

Tonsils & Adenoids	• • •	•••	4
Appendicectory	• • •	• • •	1
Lobectomy	•••	• • •	1
Herniotomy		•••	1
Tongue Tie	• • •	• • •	1
Hydrocele	• • •	• • •	2
Haemmorrhuids	•••	• • •	1
Refractive Error Cor	rected	•••	4
Delating and Curett	ing	• • •	1

363 Pathological investigations ware made of which 235 were Pathological.

157 members were referred to various Government Hospitals for further treatment. 58 persons were referred to the Corporation T.B. Clinic of which 14 were positive for Tubercular infection. 42,631 prescriptions were dispensed at the dispensary.

No. of ante-natal examination done at Ashok Vihar	629
No. of ante natal Examination done at other M. & C.W.Cs.	160
No. of deliveries conducted at the Centre	752
No. of deliveries at home with Centre Midwives	19
No. of deliveries conducted tat Hospitals	17
No. of deliveries conducted at home with barber midwives	1

Diseases directed during Ante-Natal Examinatious.

B. Deficiency	•••	•••	53
Anaemia	•••	• • •	34
Dyspepsia	• • •	•••	32
Pre-Eclamptic Toxa	aemia	•••	2
Contracted Pelvis	•••	•••	1
Hydromnios	•••	•••	1
Rh. Heart disease	•••	•••	1
High Blood Pressu	re	•••	2
Jaundice	•••	•••	1
Syphilis	• • •	•••	1
Leprosy	• • •	•••	1
			5

Complications	of	deliveries	at	the	Centre:-
---------------	----	------------	----	-----	----------

Twins	•••		4
Macerated Foetus	•••	• • •	4
Still born	• • •	• • •	. 8
Prematurity	•••	• • •	9
Footling	• • •	• • •	2
Breech			1

Complications of deliveries of cases sent to Hospitals:—

Ante Partum Haehme	Qange due	to Placenta	Pralvia	4 3 6	1
Brow presentation	• • •	•••	•••	•••	1
Breech presentation	• • •	• • •	•••	•••	1
Face presentation	• • •	• • •	• • •		1

Five babies were extracted by forceps. One was perforated and another delivered by Caesarian operation.

Family Planning:--

				- 1785, <u>947, 195</u> , 118		
No. of houses visited 103	No. of cases contacted I25		tary cases sistered 13	No. of ored by		
Total No. of cases booked 21	F. P. Applianc Diaphragm & Je 1		reception 18	Sterlit	y Fa	uilures 2
Creche:—						
. No. of re	olls on 1—1—195	7	• • •	•••	78	
No. adm	itted during the y	ear	• • •	•••	28	
· ·	oved during the		•••	• • •	38	
No. on r	olls on 31—12—5	7	•••	• • •	68	
	•					
Causes of Removo	<i>l</i> :—					
Admitted in s	schools at the end	of the	year	•••	•••	16
Change of re	sidence		•••	• • •	•••	6
Mother found	d not working		•••	•••	•••	3
Stopped with	out reasons		• • •	•••	• • •	10
Deaths			•••	•••	•••	3
Causes of Deaths:-	-,			•		

941 General, 74 Dental, 84 Eye and 25 E.N.T. checks were done.

Post measles complications

Persistent diarrhoea

The Following Diseases were detected and treated:—

	Vit. A. D. Def.		• • •	• • 0	46	
	B. Def.		•••	• • •	12	
	Chr. Rhinitis		•••	•••	56	
	Bronchitis			131	85	
	Influenza		•••		43	
	Scabies		• • •	•••	48	
			•••	•••	13	
	Conjunctivitis		•••	•••		
	Diarrohea & Dysentery		• • •	•••	18	
	Inf. Hepatitis		•••	• • •	3	
	C. S. O. M.		•••	•••	13	
	Caries teeth		•••	•••	1	
	Inf. Herdia		• • •	• • •	1	
	Anaemia		•••	•••	19	
	Measles		• • •	•••	6	
	Chicken-pox		•••	•••	2	
	Whooping Cough		•••	•••	11	
	Mumps			•••	3	
	Multiple Boils				12	
	Multiple Dons		•••	•••	12	
Improve	ments Noted:—					
	Vit. A. D. Def.		•••	•••	33	
	B. Def.		•••	•••	7	
	Chr. Rhimitis		•••	•••	45	
	Bronchitis	•	•••	•••	57	
	Influenza		•••	•••	43	
	Scabies		•••	•••	30	
	Conjunctivitis Diagraphy & Dysontony		•••	•••	13 17	
	Diarrohea & Dysentery Inf. Hepatitis		•••	•••	3	
	C. S. O. M.		•••	···	3	•
	Anaemia		•••	***	8	
	Measles		•••	•••	4	
	Chicken-pox		•••	•••	2	
	Whooping Cough		•••	•••	11	
	Mumps		•••	•••	3	
	Multiple Boils		•••	•••	12	
Laborate	ory Investigations :—				,	
	Blood count :	Total			52	
	Haemoglobin percentage:	Total		•••	53 27	
	Low H. B. %	Total	•••	• • •	4	
	Low R B C count		•••	•••	2	
	High W. B. C.		•••	•••	40	
	High Lympho		•••	•••	17	
	High Eosinophiles		•••	• • •	17	
	Smear for M. P.		• • •	•••	1	(Negative)

Motion.

Round Worm ova	•••	•••	29
E. H. cyst	•••	•••	10
Giardia	•••	•••	8
Cellular Exudates	•••	•••	14
	Total	•••	65
Immunization.			
Triple Immunogen		•••	28
T. A. B.	•••	•••	12
Primary Vaccination	•••	•••	8
Secondary Vaccination	•••	• • •	35
Manteoux test	•••	•••	20(14 Negative)
B. C. G. Inoculation			14

The present accommodation provided for the creche children is far from satisfactory. These children are not provided with a separate play-ground with the necessary out door recreational equipments. For a better up bringing of these children the creche must be to a certain extent secluded from the other activities of the Centre. When the creche was shifted to the present place due to the expansion of the maternity section, recommendations were put forth to erect a suitable building for the creche, but so far it has not been executed. It is hoped that this draw back would receive due consideration from the authorities concerned for the early rectification.

Recreation Sections.

Average attendance on week days	•••	30
Average attendance on holidays	•••	46
No. of girls of the shool going age attending school	•••	196
No. of girls not attending school	•••	15
No. of girls employed	•••	5
No. of girls engaged in domestic work	•••	1

The women and girls section which was housed in the auditorium was changed to the men and boys' section as they wanted some privacy. The bath rooms attached to this section were utilized by them for their personal hygiene.

Hand Work.

The girls were taught needle work, card board work, badminton net making, paper flower making, pot painting and ragdoll making. A few grown-up girls were taught the use of the sewing machine.

Cultural.

Library books were issued. Quiz days were held. Story writing and story telling competitions were held. Girls were made to talk to other girls and women on subjects connected with promotion of health and prevention of diseases. Music, dancing and dramas were held from time to time. In-door and out-door games were held and excursions to holiday resorts were made.

Average attendance

22

Talks and demonstrations were held on nutrition. The Public Health Nurses, as a part of their teaching and training, gave them weekly talks and demonstrations on matters pertaining to women especially with regard to their health and house keeping.

Hand Work:—

Badminton net making:—In addition to the five nets made last year 25 were made this year. 29 nets were sold to the Education Department of the Corporation of Madras for their use in the various play-grounds of the City. The profits of Rs. 14-50 was distributed to the members who made the nets.

The use of the sewing machine was taught to 8 women.

327 garments belonging to the various sections of the Centre were mended. The members made the following garments and articles for their personal use and thus saved tailoring expenses.

Blouses 89, Skirts 25, Frocks 19, Bodice 23, Pillow Cases 4 and Bags 2.

Some women who lived by tailoring used the Centre's sewing machine.

Six earthen ware vases were bought and designs painted and sold along with paper flowers which were also made by them.

Boys Section:—

Average attendance on week days	36
Average attendance on holidays	49
No. of boys of the school going age attending	
school	153
No. of boys not attending school	16
No. of boys employed	2

As the boys and men section had to be transferred to the auditorium there was no facility for attending to their personal hygiene owing to lack of bath rooms.

Cultural:—Talk were given daily to boys on health, responsible citizenship, dignity of labour and usefulness of spending leisure hours. Quiz programmes and oratorical contests were held.

In-door and out-door games were provided. Foot-ball has been their chief interest. Boys were taken out on excursions also.

Men section:—

Average attendance on week days	• • •	35
Average attendance on holidays	•••	50

In-door Recreation:—Table tennis, carroms and boxing were the indoor games. In the junior state carrom tournament 4 singles and 2 doubles teams were entered. One member F. R. No. 14 M. K. Raju was runner-up in the Singles Tournament and the doubles pair lost in the semi-finals.

In the State Boxing Association Tournament, one member, F. R. No. 183, Mr. Gangarao, won the father weight bout.

Out-door Games :-

Volley-ball, Foot-ball and Badminton.

Daily out-door games were provided and quite a number of friendly matches with other clubs were played in the above three games.

Histrionic Section:—A greater interest was evinced by members in this section. Two dramas enacted during the anniversary celebrations were written, directed and acted by members themselves. A few of them have attained quite a fame in acting and other dramatic associations have invited them to take part in their dramas.

Visits to homes of member families:—Work in the slums and homes of member families had to be curtailed during major part of the year as the Mobile Medical Vans were otherwise engaged in Influeza and Cholera epidemics. However 126 visits were made to the homes of member families by each of the staff. These contacts of families enabled the staff to foster better public relationship, to educate them on health and hygiene, to follow infants, expectant mothers, the ailing and the convalescing.

2. Service to people in the locality:—

The following services were provided by the Centre to the people in the locality.

- 1. Dispensary service both mornings and evenings.
- 2. Day and night maternity service.
- 3. Family planning service.

3. Medico social work in the slums of the City:—

14 visits were made to other slums in the City with members for doing social and health work for the people in the locality.

Work was done in the following slums:—Erukancherry, Adayar Zamin, Olcottkuppam, Varadarajapuram, Namasivayapuram and Vivekanandapuram.

Service to Personnel in the Medical and Social Fields

The students from the Madras Medical College continued to follow the families of Ashok Vihar allotted to them and gave them help whenever they were in need.

The student of the Social and Moral Hygiene Course continued their family case work among the families.

Three Students from the Madras School of Social Work were given training in recreation at the Centre.

A fresh batch of Public Health Nurse Trainees were taught Sociology and also given field work in the slums.

A new batch of Health Visitors were trained in the various sections of the Centre in addition to slums visits.

Lecture on "Positive Health" was given to six batches of Community Projects Personnel undergoing traing in the Orientation Training Centre, Poonamallee.

Six Child Attender Trainees sent by the Indian Red Cross Association were given training in the creche and Maternity Sections.

Batches of student of the sixth form of the Chinthadripet Girls High School were given training in mother craft.

Others who were benefited by their visits to the Centre were:—

Students of Stanley Medical College,

Students of College of Integrated Medicine,

Students of Vellore Medical College,

Student Nurses of Vellore Christian Mission Hospital,

Student Nurses of Stanley Hospital,

Student Nurses of Government General Hospital,

Students of the School of Social work,

Student teachers of the Teachers College, Saidapet,

Student Trainees of the Co-operative Training Institute,

Home Science Students of the Women's Christian College,

Students of Social Work of the Stella Maris College,

Students of Social Work of the Loyola College, and

Students of the Balar Kalvi Nilayam, Madras.

Film Shows: A total of 78 films were exhibited on 28 days as part of Health Education programme. A total of about 8,259 witnessed the films.

General: All festive occasions were suitably celebrated. We are grateful to the Hon. Members of the City Council for alloting Rs. 100/to Centre for distribution of sweets to the children on Republic Day. The Hon. Councillor Sri M. Soundraraj hoisted the flag and distributed sweets to children.

We are thankful to Sri P. V. Rajamannar, Ag. Governor, for inviting 10 children of our Centre for the Deepavali Party held at Raj Bhavan. The children thoroughly enjoyed the party.

The Sixth Mayor's Cup Foot-ball Tournament for slum boys was successfully concluded and on the final day the Worshipful Mayor Sri K. N. Srinivasan praised the work of the Centre and distributed the trophies to the winners and runners-up.

Winners: St. Anthony Sangam Foot-ball Club, Periamet.

Runner-Up: Y. M. C. A. Boys' Town.

The 8th Anniversary Celebrations were presided over by the late Sri A. J. John, Governor of Madras, who said that the work done for the poor people in the locality was laudable. The function ended with a variety entertainment by the members. On the next day a drama "VAZHATHERIYATHAVAN" was staged by the members of Ashok Vihar when Sri M. Radhakrishna Pillai, B.A.B.L., leader of the Congress Party in the City Council presided and commended the work done at the Centre and also offered to construct an open air stage for the benefit of the members. On the following day a baby show competition was held when nearly 50 babies took part. Sri K. Ramadoss, the Deputy Mayor presided and distributed the prizes for the sports held during the year. In his presidential speech he was eloquent about the quality of work done and wished the Centre would continued the good work for many years to

come. This was followed by a drama "NEETHITHAVARIATHU" enacted by the members.

19 members were found to be suffering from tubercular infection. 3 were admited in T. T. Hospital, Konnur High Road and after several months they were discharged after immense improvement. Two died of Haemoptysis, 5 have been getting treatment from the various T.B. Clinics 4 bought their own medicines and 5 were treated with drugs donated by other members.

Thus the members of this Centre are beginning to be aware of the need for helping their sick fellow members.

An unmarried mother, who was discarded by her husband and parents, sought our help to admit her infant in Bala Mandir and we arranged for the infant's admission.

During the 'flu' epidemic, Ashok Vihar was the head quarters from where medicines were prepared and sent by Mobile Medical Vans to various places in the City.

More Milk Day was celebrated on 14-4-1947 in co-operation with the Department of Animal Husbandary, when about 2,000 lbs. of toned milk was distributed to children.

F. R. No. 31, Amaravathy, who completed her midwifery course, has secured a job at Porur.

F. R. No. 9, Agnes, was admitted in Midwifery Training Course.

F. R. No. 273, Dakshinamurthy has become a father for the first time after 22 years of married life.

Under the joint auspices of the Indian Council of Child Welfare and the Corporation Madras, a Baby Show was arranged in all the Corporation Child Welfare Centres in Madras. More than 3,000 infants participated. The final selection was made at Ashok Vihar when Srimathi Bhakthavatsalam presided and Srimathi Subramaniam distributed the prizes to the winning babies.

Annual sports was conducted when a large number of men, women and children took part.

1,000 file pads were made by the members in the Binding Section and supplied to Health Department.

The children found to be suffering from Diphtheria were admitted in General Hospital and both of them were cured.

On the Independence Day the Health Minister, Sri Manikkavelu Naicker, hoisted the flag and distributed laddus to children. The Collector of Madras, Sri Thayappa Thevar, was also present.

F. R. No. 302. Mallika, was admitted as a free boarder in the hostel with free scholarship, in the Second Form of Lady Willingdon High School.

F. B. No. 278, Doraivelu was awarded a cup for good acting by the Southern Railway Club.

Most of the members were inoculated against Cholera and vaccinated against Small-pox.

5/2

Milk Distribution:

2, 852 lbs. of skimmed milk powder was used to distribute milk to the following daily:—

Children below 6 years	En	62
Children above 6 years	•••	78
Expactant mothers	•••	.14
Nursing mothers	· · · · · · · · · · · · · · · · · · ·	18
	Total:	172

P 12988 1

医腹腔 经通知的

Marriages

4 members got married.

Deaths:

There were 22 deaths among the members. The details are furnished below.

				100000000000000000000000000000000000000
	Age	Male	Female	Total .
	Under 1 year		2 .	2
4	Between 1-6	, 5	, 6	11
	Between 6-12		1	1
	Audlts	2	3 .	5
	Above 50 years	2	1	3
100	Total	9	12	22

Causes Among Children: Cause's Among Adults: Pulm. T. B. Dysentery & Diarrohea Deficiency diseases Cirrhosis of liver 2 Broncho Pneumonia Pregnancy vomiting Primary complex Bronchogenic carcinoma Influenza Paralysis Accidental drowning Typhoid Heart failure

Jobs:

2 men and 1 woman were secured jobs. 4 members were secured temporary jobs in Southern Railway as khalasis.

10 members were secured temporary jobs in the Park Fair Exhibition.

Gifts, Grants & Donations:

The State Government was pleased to sanction a grant of Rs. 10,000/-.

Out of the interest accrued on the Donation of Rs. 1,000/- made by Sowbaghyavathi Neelambal Sisu Samrakshana Kishera Dharma Endowment, milk was supplied to the creche children.

The Guild of Service (Central) through the kind offices of Padmasri Smt. M. C. Jadhav, the Hon. Secretary, received the following:

- 11 Bags of wheat
- 25 cases of Milk solids
- 2 barrels of skimmed milk powder
- 20 cases and 1 tin of multipurpose food.

Srimathy Kandaswamy of Vepery distributed buns and sweets to all the creche children and six half-pants and six shirts to deserving children on the Christmas eve.

22 tins of Glaxo milk food were donated by Messrs. Glaxo Ltd., and they were distributed to needy infants.

100 plastic spoons were given by Messrs. Nestles and they were presented to the infants who took part in the Baby Show competition held on 20-11-57.

We are grateful to the above organisations and the individuals for the gifts to the Centre which were duly distributed to the deserving members.

Thanks are also due to U.S.I.S., the British Council and the B.I.S. for the loan of films and back numbers of periodicals. The Centre is also indebted to the W.H.O. and the International Planned Parenthood Association for sending us literatures and pamphlets periodically.

Visitors:

The Centre had the honour to receive the following dignitaries during the year:—

- 1. Dr. W. R. Coutelle, Pediatrician, Berin Academy of Science.
- 2. Dr. Kanneth Kindelsperger, T. C. M. Advisor in Social Work Education.
 - 3. Prof. Pbiper, University Children's Hospital, Leipzig.

STADIA PLAY-GROUNDS AND PARKS

Stadium:—Peoples' Park.

The area of the Stadium is 13 acres. The area of the central arena in the Stadium is 8 acres. There are 6 Cricket Pitches in the centre and Football and Hockey fields on either sides. The Stadium galleries are designed to accommodate about 40,000 spectators. The Stadium is mainly let out to cricket, foot-ball, hockey and other sports.

Tennis Stadium, Egmore:

The area of the Stadium is 3 acres. There are 3 tennis courts having a seating capacity of about 7,000 spectators.

Play Grounds and Parks:

Besides this, the Corporation is also maintaining play grounds and Parks for the benefit of the citizens of Madras.

Market Commence of the Commenc

REPORT ON CHILD WELFARE SCHEME 1987

In 1957, Child Welfare Scheme expanded its activities by adding one Child Welfare Centre in 40th Division, by increasing 25 more beds in the maternity wards and by starting examination of blood in 5 more Centres. The position at the end of the year showed that the Corporation maintained 41 Child Welfare Centres (20 of them having wards with 295 beds) while blood examination was conducted in 15 Centres. Noteworthy feature during the year is a substantial reduction in both the maternal and infantile mortality rates being 09.4 and 108.25 per mille respectively as against 1.15 and 109.30 per mille respectively for 1956.

Staff:—Captain (Kumari) C. N. Rukmini, M.B.B.S., Lady Superintendent, Child Welfare Scheme was in-charge of the Scheme during the year but for the leave period from 20—5—57 to 21—8—57 when Dr. (Mrs.) V. S. Krishnaswamy, M.B.B.S., D.M.C.W. (Cal.), C.P.H. (Lond.), acted as Lady Superintendent.

There were 31 Asst. Surgeons, 34 qualified Health Visitors, 8 General Trained Nurses, 234 Midwives and 30 Compounders during the year under report.

Pre-natal Clinics:—The pre-natal work forms an important link between expectant mothers and Child Welfare Centres. Pre-natal work is conducted by the Asst. Surgeons thrice a week regularly in each Centre. The expectant mothers are given thorough medical check-up on their first visit and thereafter re-examined once a week or a fortnight as the individual cases demand. 41,020 expectant mothers attended the clinics and were given medical advice and treatment by the Asst. Surgeons against 39,527 in the previous year. An appreciable number of mothers were benefitted by instructions, advice and treatment given at these Centres.

Maternity Service:—The total number of births in the City during the year was 69,197. The number of the labour cases that came under the care and observation of the Scheme was 31,655 as against 31,267 in the previous year. 17,378 births were conducted in the Corporation Maternity wards during the year, the figure for the previous year being 16,132. The number of house visits made by the Midwives was 2,17,116, by the Health Visitors 1,49,936 and by Assistant Surgeons was 20,668 during the year. Among the births that came under the care of the Child Welfare Scheme, there were 261 twins and 783 still-births.

Out-patients Clinics:—The Assistant Surgeons conducted out-patient clinics in the Centres as usual. Infants, pre-school children, expectant mothers and nursing mothers were examined, advised and treated for minor ailments. 62,261 infants, 19,309 pre-school children, 40,936 expectant mothers and 71,619 nursing mothers represent the new cases that were treated and advised. The total number of cases attended was 6,30,880 inclusive of 4,36,755 old cases.

Serological examination of blood of ante-natal cases:—Serological examination of blood was conducted of all ante-natal cases that attended the 15 Centres. For all positive cases treatment with pencilin supplied by UNICEF was given free of cost. A statement showing the number of blood samples examined and the number of positive cases treated etc. during the year is given below:—

Total No. of blood samples examined.	of positive	Total No. of positive cases that took full course of treatment.	positive cases that	No. of positive cases that did not turn-up inspite of persuation by the staff.
14,153	, 750	178	142	430

Milk supply:—Cow's milk was continued to be supplied to ill-nourished infants. The total number of such infants fed with fresh milk was 3,642. Skimmed milk powder received as gift from UNICEF was supplied to deserving infants over one year, toddlers, expectant mothers, and nursing mothers in the Child Welfare Centres.

Ambulance Service:—Three ambulance vans were in service during the year. 2,106 cases requiring hospitalisation were transported by these vans to various maternity hospitals in the City.

Maternal Mortality:—Out of 31,955 labour cases that came under the care and observation of the Child Welfare Scheme during the year there were 30 cases of maternal mortality as shown below. (Figures for 1956 being 31,267 and 35 respectively.)

Name of Institution		Deaths in	
		1957	1956
Child Welfare Centres	•••	1	4
Hospitals	•••	28	31
Private Doctors	•	•••	•••
Vaidians		1	
		30	35

The maternal mortality rate works out to 0.94 per mille as against 1.15 per mille in the previous year.

Infant Mortality:—The number of still births was 710 in 1956 as against 716 in 1955 while the total number of births for these two years were 31, 267 and 32, 285 respectively. The number of infants kept under the observation during the first year of life in 1957 was 30,557 against 31,569 during the year 1956. The mortality among live births was 3,308 while that in the previous year was 3,442. The whereabouts of 2,507 babies could not be traced. The Infant mortality rate worked out to be 108.25 per mille for 1957.

Creches:—Three creches were maintained by the Child Welfare Scheme at Royapuram, Broadway and Chetpet. They are intended for the benefit of working class parents whose combined income is Rs. 50/- or below per month. The working mothers leave their children at these creches before they go out for work in the mornings and take them back in the evenings. During their stay at the creches, the children are given bath, fresh and clean clothing, nourishing food and adequate rest. They are allowed to play games both indoor and outdoor. Then they attend nursery classes. Action songs, story telling and prayer are part of thn programme at these nursery classes. All minor ailments of the children are attended to then and there by the Asst. Surgeons-in-charge. The average daily attendance of children at Royapuram, Broadway and Chetpet creches was 22, 29 and 20 respectively.

Family Planning:—Six full time and four part-time Family Planning Clinics continued to work till 30—10—1957 when the Corporation had to adopt the 'Family Planning Intensive Scheme for Madras City' sponsored by the State Government. The Scheme was inaugurated on 30—10—57 by Hon'ble Sri M.A. Manickavelu, B.A.B.L., Minister for Health and Revenue. This scheme envisages the establishment of 31 Information Centres for Fathers in the existing Birth and Death Registration Offices and 50 Information Centres for Mothers in the existing 40 Maternity and Child Welfare Centres.

. - - 5

The first stage of this Scheme was launched in Pudupakkam Clinic Area (Triplicane) comprising of divisions 37, 38, 39, 40, 41, 42, 43, 44, 45 and 50 of the City, with the establishment of 6 Mothers Information Centres in the Child Welfare Centres and 5 Fathers Information Centres in the B & D Registration offices existing in that area.

1.	The number of women given advice in the Family Planning Clinics during the year is	16,615
2.	The number of women given advice in the 6 Mothers Information Centres is	3,741
3.	The number of men given advice in the 5 Fathers Information Centres is	570

REPORT ON THE PUDUPAKKAM PILOT FAMILY PLANNING SCHEME

The Corporation was running 6 Full-time and 4 Part-time Family Planning Clinics. The working and the desired results were not upto the high expectations. The Govt. proposed an Intensive Pilot scheme to be implemented by the Corporation financed by the Govt. This was called Pudupakkam Pilot Family Planning Scheme. The scheme covers ten divisions of the Corporation viz. 37 to 45 and 50. With the starting of this scheme the four part time Family Planning Clinics were abolished and one of the six full time Family Planning Clinics has been taken over as the Directing Centre for this pilot scheme. The centre is the one at No. 8, Nyniappa Maistry St., Triplicane. Dr. Mrs. S. Mathew is incharge of this Centre.

Amongst the new features of this pilot scheme is the approach to the fathers by male tutors and canvassers trained in the Family Planning Institute. This contact of fathers is an original and a new way. In addition to the usual direct approach to the mothers by full-timed staff nurses and social workers which is the usual line of activity in Family Planning work, fathers are taught and instructed and schooled in the methods of Family Planning so that the knowledge of both father and mother is more effective in its application and the responsibility to control the size of the family is laid on both the partners, thus perhaps the responsibility is more easily discharged. It is with this idea that five Father Information Centres are opened one in each of the Birth & Death Registration Offices located in:—

- 1. 369, Pycrofts Road, Triplicane,
- 2. 25, Pycrofts Road, Triplicane,
- 3. 25, Barbers Bridge Road, Krishnampet,
- 4. 63, Cutcheri Road, Mylapore, and
- 5. 101, Cutcheri Road, Mylapore.

Each centre is staffed by one tutor who has undergone training in the Family Planning Institute at the Govt. Hospital for Women and Children, Egmore. He attends the centre daily, from 6 to 8 p.m. He is paid an honorarium of Rs. 30/- p.m. The B. & D. Registration Clerk of this centre contacts fathers, who have had three or more children, and induces them to come to the Father Information Centre where the tutor instructs them the Family Planning methods either to space the pregnancies or to adopt the permanent method of vasectomy. Each canvasser is paid 50 nP. for every father registered by the tutor. Vasectomy is forced home if the father has had too many children. This operation is done free either in one of the Govt. Hospitals or by the panel surgeon Dr. D. S. Iyer in 79,

Big St., Triplicane. These Father Information Centres are supervised and controlled by a Male Medical Officer, Dr. N. Natarajan.

Vasectomy and Salpingectomy, a permanent method of sterilisation in the female, are useful immediately in this way. After 4, 5 or 6 children for a married couple trial of any Family Planning method short of sterilisation may not stop absolutely further pregnancies. This risk is not worth taking when this sterilisation is at hand and immediately available. Nothing is lost but there is every gain for the father, mother and children. Sterilisation of women too with excessive multiparity has to be done only when she is to be confined. Therefore it is that vasectomy being far simpler and an operation that can be done any time, is advised though salpingectomy is equally easy and simple if the woman happens to be pregnent and is confined in a hospital. The resort to this method of sterilisation either in the father or mother will, ina short time, reduce the number of fathers having more than 5, 6, 7 or more children. This is in itself some improvement. When Family Planning methods become more popular, the necessity for this method will confine itself only to those fathers and mothers. where avoidance of further pregnancy is a matter of imperative necessity for the sake of the mother.

Under this pilot scheme there are six Mother Information Centres situated in the six Child Welfare Centres of the Corporation in the following places:

- 1. 84, Lloyds Road, Royapettah.
- 2. 8, Nyniappa Maistry St., Pudupakkam, Triplicane.
- 3. 34, Brodies Road, Mandavalli.
- 4. 24/55, Soorappa Mudali St., Zam Bazaar.
- 5. Dr. Besant Road, Meersahibpet.

Each centre is staffed by a Staff Nurse trained in the Family Planning Institute and an Ayah. The nurse visits the houses of mothers who have been confined for the third or higher order of pregnancy and advises them to go to the Mother Information Centre where the lady doctor gives advice and instructs them in appliance methods if so needed and also supplements the advice, which the staff nurse gives. In addition they tell the mothers to send their husbands to the Father Information Centres where the tutors instruct the fathers in Family Planning methods. Similarly the fathers are advised by the tutors and canvassers to send their wives, if they have not already gone to the Mother Information Centres to the nearest Mother Information Centres.

In the All India Khadi and Swadeshi & Industrial Exhibition held from 23rd Dec. 1957 to 2nd Feb. 1958 the Family Planning Pilot Scheme section put up two stalls separately one for mothers and another for fathers. In these stalls models, posters and pictures relating to Family Planning were exhibited and Family Planning Manuals in English and Tamil were sold during the exhibition. In addition pamphlets of the speech on Family Planning of the Hony. Minister for Health on the Inauguration of the Family Planning Pilot Scheme in October 1957 were distributed in thousands. Also leaflets on Family Planning Scheme in the Madras City were given to the public.

From the opening of the Scheme from Oct. to the end of Dec. 1957 570 fathers have been contacted and registered in the four Father Information Centres. The fifth centre did not start working for want of a Tutor.

The Reports describing the work done in the Mother Information Centres upto 31st Dec. 1957, are furnished in the Statistics Supplement Nos. 68 & 69.

SPECIAL HOME

The year opened with 205 inmates. The total number of admissions during the year was 166. The total number of disposals was 215. The details of which appear below:—

Particulars	Males	Females	Total
Strength on 1—4—57	145	59	205
Number of admissions during the year	51	91	152
Number of inmates transferred from Government Care Camp.	14	•••	14 \} 166
Number of inmates discharged on completion of detention period.	86	47	133)
Number of inmates transferred to Daya Sadan.	4	1	5
Number of inmates released under Rule 69	20	18	38 215
Number of inmates escaped	13	4	17
Number of deaths during the year	8	11	19
Number of inmates in other hospitals on 31—3—58.	2	1	3
Strength on 31—3—1958	86	70	156

Admissions

The list of district to which they stated they belonged is given below:—

Madras City	•••	59	Ramnad	•••	3
Chingleput	•••	19	Malabar	-	5
North Arcot	•••	7	Andhra	•••	4
South Arcot	•••	11	Salem	•••	1
Tanjore	•••	3	Pondichery	•••	3
Trichy		1	Bombay	•••	1
Madurai	•••	4	Wanderers	•••	45
			Total	-	166

The age period classification of inmates admitted during the year is furnished below:—

Between 20 and 30 years	50
Between 30 and 40 years	41
Between 40 and 50 years	41
Between 50 and 60 years	23
Over 60 years	11
Total	166

The period of committal of the inmates varied between 6 months and two years.

Medical Treatment:—The inmates on admission were in a bad state of health, suffering from malnutrition and some from Chronic diseases.

The leprosy cases were treated with sulphous and hydro carpus oils and infected ulcers were dressed and thus the disease in most of them was arrested or made non-infective.

Most of the diseases were treated in the Special Home but those requiring special treatment were referred to the hospitals and details are given below:—

Government	Royapettah Hospital	•••	28	3
Government	General Hospital	•••	1	1
Government	Stanley Hospital	•••	1	l
Government	Kasturba Gandhi Hospital	•••		1
Corporation	Infectious Diseases Hospital	•••	22	2
	1111		. 56	5

The cases improved both in appearance and health with the adequate diet and medical treatment meted out to this in the Special Home.

Disposals

After allowing for remission for work and good conduct 133 cases were discharged on completion of detention period; 38 cases were released prematurely under Rule 69; 17 cases escaped from the Special Home and there were 19 deaths. The death of 19 for a total of 345 works out to 5.5% which is very low considering the state of cases on admission and the diseases most of them suffered from. The cases of death are as follows:—

	Cause of death	Male	Female	Total
1.	Diarrhoea (in Infectious Diseases hospital).	2	1	3
2.	Septicaenina complication in leprosy (in Special Home).	2	•••	2
7. 3.	Emociation and delicity (in special home).	- •••	7	7
4.	Heart Failure (in Special Home)	•••	2	2
. 5.	Tuberculosis enteritis (in Special Home).	1 14	•••	1
6.	Other causes	3	í	4
edimos	(deaths occured in Government Royapettah Hospital who did not give the cause of death)	~ 78	11.	7.19
				1 1 1 3 3 10

Visitors:—Official, Non-official, and ex-official visitors visited the home.

Sri S. Radha Iyer, student, Delhi School of Social Works visited the home on 8—6—57.

The Inspector-General of Prisons visited the home on 30—3—58.

Amenities:—Radio provided entertainment to the inmates. They have been supplied a Mridangam and Tabla.

Occupational Therapy:—Such of the inmates as were diseases and in a fit condition to do so, engaged in weaving section and helped in the garden. They also helped to keep the premises clean.

The following articles of linen were produced by the Weaving Section.

Particulars of produce.	Cost of Raw materials.	Cost of finished product.	
Bandage 2717 Yds.	Rs, 350.00 (approximately)	Rs. 407.55 (approximately)	
Gada Cloth 162 Yds.	Rs. 61.77 (approximately)	Rs. 121.50 (approximately)	

The bandage cloth was utilised for dressing wounds and ulcers of the inmates.

The gada cloth was stitched into jibbas and given to the inmates.

Garden

Vegetables weighing about 2395 lbs were grown and helped to replace contract vegetables. The value at the contract rate of Rs. 0-1-3 per lb. works out to Rs. 187-1-9.

The staff of the institution are:

Superintendent and Med	lical Officer	•••	1
Nurses	•••	•••	2
Clerk	•••	•••	1
Compounder	•••	•••	Į
First Grade Warder	•••	•••	1
Second Grade Warders	•••	•••	10
Male ward attendants	•••	• • •	4
Peons	•••	•••	3
Cooks	•••	•••	3
Male Thottis	•••		8
Female Thottis	•••	•••	5
Dhobies	•••	••• ,	3
Barbers	•••	•••	2
Gardener	•••	•••	1

Below the list of condition found among the admissions for the year is given.

15 givon.				
	1111	Male ·	Female	Total
LEPROSY—			и	
Infective		33	41	74
Non-infective	. •••	17	9	26
CENTRAL NERVOUS SYSTEM—		11		
Mental Nervous	0 1 V 1 0 000	1	7	10
	3 = 4 1, 15	1	11	12
Hemiplegin	•••	•••	1	,1
Epilepsy	m	•••	1	1
Panaplegia	•••	•••	1	1
CIRCULATORY SYSTEM—				
Oedema			3	3
Anæmia		1	1	2.
			1	2
SKIN DISEASES—			•	
Fungus	•••	1	1	2
DEFECTS—				
Blindness		1	1	2
	•••	1	1	2:
Deaf mute	. •••	•••	2	2:
Pulmonary Tuberculosis	•••	1	1	2
Elephantiasis	•••	•••	3	3.
Dehydration	•••	3	•••	3
Normal		17	15	32.
	1 - (f)	75	91	166

.

.

. . . 1

. . . .

. . .

. .

v * ||

A . F . V

to Transmit

E who is

1 1 1

CATTLE YARDS & VETERINARY DISPENSARIES

1.	No. of renewal applications received	•••	1454
2.	No. of applications recommended	••••	839
3.	No. refused	• •	624
4.	No. of new applications received	••••	158
5.	No. recommended	•••	50
6.	No. refused	••••	108
7.	No. of unlicensed Cattle Yards	****	760
8.	No. of Notices issued in respect of Item 7	••••	789
9.	No. prosecuted for non-compliance	•••	739
10.	No. prosecuted more than once	••• .	252
11.	No. improved and found fit for licence as a		
	result of action taken	•••	163
12.	No. evacuated in pursuance of action taken	••••	81

The services of Veterinary Assistant Surgeons in charge of the Conservancy Cattle Depots were made use of to look after the health of the milch animals.

Public Cattle Yards

The Corporation of the City of Madras, as usual, continued to maintain Public Cattle Yards at the following places:—

1.	41, Basin Bridge Road	• • •	7th Division.
2.	75, Venkatesa Naicken Street	••••	24th Division.
3.	Singanna Chetty Street	• • •	29th Division.
4.	Arimuthu Maistry, Street		41st Division.

Veterinary Dispensaries

Four Veterinary Dispensaries are run by the Corporation of Madras at the following places:

'B' Dopot: Basin Bridge Cattle Depot, Kondithope.

'D' Depot: Harris Road Cattle Depot, Pudupet.

'F' Depot: Hamiltan Bridge Cattle Depot, Mylapore.

'H' Depot: Nungambakkam Cattle Depot, North T' Nagar.

Statement Showing the Cases Treated Class-war in all the Veterinary Dispensaries during 1957.

No.	Veterinary Dispensa-	C	Total.		
	ries.	В	О	Е	
1 2 3 4	B D F H	5,703 9,716 12,486 5,563	4,283 3,585 7,799 5,623	13 12 37 55	9,999 13,313 20,322 11,241
	Total	33,468	21,290	117	54,875

ZOOLOGICAL GARDEN

The Madras Zoological Garden is now 103 years old and is able to command more popularity amongst the zoos in the country. The rates of admission continue to be the same. Except for the annual grant of Rs. 10,000 by the State Government as compensation to the Corporation for the loss of income in admitting elementary school children at one anna per head, all other expenses were entirely met by the Corporation of Madras.

The noteworthy features of this year were the addition of Himalayan Pheasants and Game Fowl to the collection and the introduction of strange Secretary Birds and Bustards from Africa. The outstanding event was the successful breeding of tigers without any congenital deformity in the young as reported in the previous year.

Visitors.—The zoo attracted on an average, about four lakhs and a half adults and a lakh and a half of children. This reduction in the number of visitors is mainly due to the Influenza epidemic that raged in the City during the middle of the year.

Distinguished visitors.—Shrimathi Lourdammal Simon, Minister for Local Administration, visited the zoo along with the Collectors and Deputy Collectors and appreciated the arrangements. Shri R. K. Trivedi, I.A.S., Vice Principal, I.A.S. Training School, visited the zoo with I.A.S. trainees and praised the standards maintained in this zoo. Other important visitors are Professor Kaul, Director, National Botanic Gardens, Lucknow, and the Assistant Director, Mr. Percy Lancaster, Mrs. and Mr. L. Ruhe, Proprietor, Gelsenkerchon Zoo, Hannover, Germany, Shri M. R. Kothandaraman, Secretary, Planning Commission and Mr. Dayanchand and Mr. Gentle, India's hockey wizards.

Shri B. V. Ramanjalu continued to be the Superintendent of the Zoo. The Superintendent, being the Technical Secretary of the Zoo-wing of the Indian Board for Wild Life, was deputed to attend the IV General Sessions of the Indian Board for Wild Life and the II Meeting of the Zoo-wing held at New Delhi from 14—2—58 to 16—2—58.

The Madras Zoo celebrated the Wild Life Week jointly with the Forest Department in a grand manner.

On 10—10—57 a public meeting was arranged in the zoo presided by the Hon'ble Minister, Shri M. Bhakthavathsalam. This year the procession consisted of more wild animals. A special cage on wheels with a couple of tigers inside was a great attraction. In connection with the Wild Life Week, the Zoo Superintendent delivered two lectures on wild life preservation in the Stella Mary's College and Queen Mary's College.

The Zoo Superintendent was directed by the Government of Madras in G.O. No. 2356 dated 3rd August 1957 to deliver a series of ten lectures to the final year students of the Madras Veterinary College on 'Diseases and Treatment of Wild Animals'. The Superintendent was able to deliver only the first five lectures before the term was over.

Zoo Live-stock:—At the commencement of the year the zoo live stock consisted of 590 specimens, comprising of 227 mammals, 326 birds and 37 reptiles.

Acquisition through births, purchases, gifts, captures, exchanges, etc., numbered 103 while reduction, due to death, sale, outward exchange, destruction, gifts etc., was 65. There was thus at the end of the year 628 individual specimens comprising of 239 mammals, 355 birds and 34 reptiles.

The following statement shows the details of addition and disposals under each class:

	Additions]	Disp	osals			- 0 -	
Class		Number at the beginning of the year	Gifts	Purchase	Births and hatches	Captures & exchange	Total	Sale	Death	Exchange	Destroyed	Gifts	Total	Number at the end of the year
Mammals	• • •	227	12	4	23	• • •	39	4	9	1	• • •	13	27	239
Birds -	•••	326	1	55	7	· 1	64	• • •	12	• • •	4	19	35	355
Reptile	• • •	37	•••	• • •	•••	•••			3	•••	• • •	•••		334
Total	• • •	590	13	59	30	1	103	4	24	1	4	32	65	628

Status of Collection

Class		No. o	f Species	No. of specimens		
Class	*	1956–57	1957–58	1956–57	1957–58	
Mammals	•••	54	56	227	239	
Birds	•••	54	64	326	355	
Reptiles	• • •	9	11	37	34	
Total	•••	117	131	590	628	

Additions

By purchases:—As there were lot of restrictions on import of exotic animals, no attempts were made to import bigger animals. However, the most outstanding purchase made in the year was a pair of Secretary birds, and a pair of Bustards which were introduced in this zoo for the first time. Also this happened to be the first time these birds were imported to India. Other less important purchases were 6 Cnukors, 2 Tragopans, 4 Monal Pheasants, 2 Koklas Pheasants, 4 Sarus Cranes, 2 Demoiselle Cranes, 4 larger Egrets, 2 smaller Egrets, 1 Pelican, 8 Pochards, 2 Conures, 2 Malabar Squirrels, and 2 Cutch goats.

By Gifts:—No attractive gifts were received this year except 1 Wanderoo Monkey by Mr. C. P. David, 1 Tigress Cub by Madras Forest Department, 1 Lioness Cub by Shri M. G. Ramachandran, 1 Sambar deer by Rajah of Parlakimedi, 1 Palm Civet by a social worker, 1 wild cat and 6 white rats and 1 Emerald Dove by some interested visitors.

By birth and hatches:—The most outstanding of the births this year was that of Sethu, Malli and Meera, three tiger cubs born to tigress Mary and fathered by tiger Frank. The cubs were born on 31—8—57. Other births among mammals were 2 rhesus monkeys, 2 raccoons, 1 golden agouti, 3 white bucks, 10 axis deer 2 and sambur deer.

Disposals

By Gifts:—Last year the Council sanctioned the gift of some animals to the newly formed Delhi Zoological Park, but they were actually taken Delivery of in the month of December 1957. The following animals were sent in a special wagon:

1 Sloth Bear, 2 sambur deer, 10 spotted deer, 1 emu, 4 pea fowls and 12 fan-tail pigeons.

2 rose faced love birds were given as gifts to Trivandram Zoo in connection with the centenary of the Trivandrum Zoo.

By sale:—One lame tiger cub and two zebras were sold to Kamala Circus with the sanction of the Council at a cost of Rs. 300/- for each Zebra and Rs. 300/- for the tiger cub. Another zebra was sold to Trivandrum Zoo at a cost of Rs. 2,000/- The zebras were sold away with the intention of buying new zebras from Africa to improve the blood-stock and to avoid in-breading.

By exchange:—One elephant was bartered for a giraffe and though the giraffe was received last year the elephant was sent away to Germany only this year.

By deaths:—Fortunately death did not lay its icy hands on any rare and valuable animals, and there were not many deaths also. The following is the list of animals, that died during the period under report: 1 stump tailed monkey, 1 civet cat, 2 jackals, 1 rotel, 2 porcupines, 2 wallabys, 2 jungle fowl, 3 domestic fowls, 1 silver pheasant, 1 golden pheasant, 1 monal pheasant, 1 bar headed goose, 2 vultures and 1 conure. Among the losses, the death of the walabies and the ratel were the most regretted, proper care and attention have been paid to the health and general hygiene of the zoo inmates. Thanks to the Madras Vaterinary College authorities for examining 68 samples of faoces and other material, and for the timely advices and treatment. The great amount of care bestowed by the Veterinary Surgeon and the staff during the year, have favourably resulted in keeping the death rate remarkably low as in the previous year. The death rate worked out at 3.8 as against 2.2 last year.

Revenue:—The following is the statement of receipts received during the year under report.

1.	Zoo entrance fees	•••	Rs.	1,25,500
2.	Zoo canteen	•••	Rs.	6,505
3.	Zoostank boating fees	•••	Rs.	6,510
4.	Hire of animals	•••	Rs.	1,812
5.	Sale of animals		Rs.	6,706
6.	Miscellanious (Cameras, joy rides, cars, film-shooting, animal			
	products, etc.)	•••	Rs.	1,320
			Rs.	1,48,353

INSTITUTIONS UNDER THE HEALTH DEPARTMENT

Offices of Registrar of Births and Deaths and Vaccination Depots

Office hours:— 7-30 to 10 a.m. and 3-30 to 5-30 p.m. except Sunday.

Serial No.	Divisions serve	ed	Location
1.	1, 2 and 3	•••	87, Suryanarayana Chetty St., Royapuram.
2.	4 & 5	• • •	546, Thiruvottiyur High Road, Washermenpet.
3.	6-A	•••	22, Gantz Road, (mornings)
4.	6-B′	•••	55, Madavaram High Road, Perambur (evenings)
5.	7, 8, 9 & 10	• • •	244, Mint Street.
6.	11, 12, & 13	• • •	47, Linghi Chetty Street.
7.	14 and 15	• • •	161, Govindappa Naick Street.
8.	16	• • •	17, Basin Water Works Street.
9.	17	•••	Rotler Street, Vepery.
10.	18 and 19	• • •	55, Pulianthope High Road.
11.	20	• • •	23, Paper Mills Road, Sembiam.
12.	21	• • •	127, Konnur High Road, Ayanavaram.
13.	22-A and 25	• • •	65, Poonamallee High Road, near Spur Tank.
14.	22-B and 35-B	• • •	Shenoy Nagar.
15.	23 and 24	•••	6, Gangadareaswarar Koil Street.
16.	26	•••	Zoo Compound.
17.	27 and 28	•••	23, Kolandai Street, Park Town.
18.	29 and 30	•••	3/61, Arunachalla Naicken Street, Chintadriper
19.	31 and 32	•••	34, Poosala Gengu Reddy Street, Egmore.
20.	33 and 34	•••	15, Noor Veeraswamy Iyer Street, Nungambakkam.
21.	35-A	• • •	107, Arcot Road, Kodambakkam.
22.	36 and 47-A	•••	1, Sir Theagaraya Road, T. Nagar.
23.	37, 38, 39 and 40	•••	369, Pycrofts Road, Pudupakkam.
24.	41 and 42	•••	25, Pycrofts Road, Triplicane.
25.	43	•••	25, B.B. Road, Krishnampet.
26.	44	• • •	101, Kutcheri Road, Mylapore.
27.	45 and 50-A	• • •	63, Kutcheri Road, Mylapore.
28.	46	•••	2/104, Mount Road, Teynampet.
29.	47-B and 48	•••	1, Karneeswarar Koil Street, Saidapet.
.30.	49	•••	32/5, Velacheri Road, Guindy.
31.	50-B	•••	13, Greenaways Road, Adayar.
	h 20		

h-30

Offices of Sanitary Inspectors

Serial No.	Division served		Location	
1.	1	•••	21/22, Kappal Polu Chetty Srreet.	
2.	2	•••	1, Kalmandapam Road.	
3.	3	•••	Robinson Park.	
4.	4		546, Thiruvotriyur High Road, Old Washermenpet.	
5.	5	•••	Do.	
6.	6	• • •	C.W.C. Bharathi Road, Perambur.	
7.	7	•••	244, Mint Street.	
8.	8	•••	244, Mint Street.	
9.	9		31, St. Xavier Street.	
10.	10	•••	Junction of Monegar Choultry Road Ebramji Sahib Street.	and
11.	11	•••	1/32, Ebramji Sahib Street.	
12.	12	•••	6/7, Adam Street, Harbour.	
13.	13	•••	47, Linghi Chetty Street.	
14.	14 .		3/48, Thatha Muthiappan Street.	
15.	15	•••	761, Govindappa Naicken Street.	
16.	16	•••	183, Walltax Road.	
17.	17-A	•••	39, Veda Vinayagar Road.	
18.	17-B	•••	39, Veda Vinayagar Road.	
19.	18	•••	55, Pulianthope High Road.	
20.	19	•••	1-B, Bashyam Reddy Street, 1st Street.	
21.	20-A and B	•••	257, Paper Mills Road, Sembiam.	
22.	21	• • •	127, Konnur High Road, Ayanavaram.	
23.	22-A	• • •	65, Poonamallee High Road, Kilpauk.	
24.	22-B	•••	Corporation Market, Shenoy Nagar.	
25.	23	•••	6, Gangadareswarar Koil Street.	
26.	24	•••	39, Veda Vinayagar Road.	
27.	25	•••	65, Poonamallee High Road.	
28.	26	•••	66, Maddox Street, Vepery.	
29.	27	• • •	28, Wall Tax Road.	
30.	28	•••	32, Kolandai Street.	
31.	29	•••	3-A, Arunachala Naick Street, Chintadripe	et.
32.	30	•••	72, Kalava Chetty Street, Chintadripet.	
33.	31	****	83, Harris Road.	
34.	32	•••	34, Poosala Gengu Reddy Street, Egmore.	
35.	33	• • •	16-A, Nungambakkam High Road.	
36.	34	•••	21, Village Road, Nungambakkam.	
37.	35-A	•••	107, Arcot Road.	
38.	35-B	• • •	Corporation Market, Shenoy Nagar.	

Serial No.	Division serv	ed.	Location
39.	36		3, Sivagnanam Road, T. Nagar.
40.	37	•••	368/39, Pycrofts Road.
41.	38	•••	368/369, Pycrofts Road.
42.	39	•••	102, Thayar Sahib Street.
43.	40	•••	25, Pycrofts Road.
44.	41	• • •	25, Pycrofts Road.
45.	42	•••	22, Chengalroya Mudaly Street, Triplicane.
46.	43-A and B	• • •	25, Barbers Bridge Road.
47.	44	•••	101, Kutcheri Road, Mylapore.
48.	45	• • •	101, Kutcheri Road, Mylapore.
49.	46-A and B	•••	104, Mount Road, Teynampet.
50.	47-A	•••	3, Sivagnanam Road.
51.	47-B	•••	22, Brahmin Street, Saidapet.
52.	48-A	•••	22, Brahmin Street, Saidapet.
53.	48-B	•••	22, Brahmin Street, Saidapet.
54.	49	•••	32/5, Velacheri Road, Guindy.
55.	50-A	•••	Mandavali Street, Mylapore.
56.	50-B	• • •	Bridge Road, Adyar.

Dispensaries

Serial No.	Divn. No.	Name of Dispe	ensar	Location Location
1.	1	Royapuram	• • •	87, Śuryanarayana Chetty St.
2.	2	Palmyrah Kuppam	• • •	Near Corporation Model Lines.
3.	5	Washermenpet	•••	85, Tiruvottiyur High Road.
4.	6	Vyasarpadi	• • •	Hope Lodge, Gantz Road.
5.	6	Perambur	•••	55, Madavaram High Road.
6.	8	Mint	•••	244, Mint Street.
7.	12	Harbour	•••	6/7 Adam Street.
8.	14	Mafuskhan Garden	•••	55, Thatha Muthiappan St.
9.	16	Trevelyan Basin	• • •	17, Trevelyan Basin Water Works Street.
10.	17	Baliah Naidu	• • •	Rotler Street.
11.	20	Sembiam	• • •	42, Paper Mills Road.
12.	21	Ayanavaram	• • •	127, Konnur High Road.
13.	25	Kilpauk	•••	6, Gangadareaswarar Koil Street.
14.	24	Kosapet	•••	8, Chellappa Mudali Street.
15.	29	Chintadripet	• • •	2/61, Arunachala Naick Street.
16.	32	Egmore	• • •	34, Poosala Gengu Reddy St.
17.	34	Nungambakkam	• • •	15, Noore Veeraswamy Iyer St.
18.	35	Kodambakkam	• • •	107, Arcot Road.

Serial No.	Divn. No.	Name of the Dis	pen	sary Location
19.	37	Puduppakkam -	•••	367, Pycrofts Road.
`20.	41	Triplicane	•••	25, Pycrofts Road.
21.	43	Krishnampet	•••	25, Barbers Bridge Road.
22.	45	Mylapore .	•••	101, Kutcheri Road.
23.	47	T. Nagar	•••	3, Sivagnanam Road.
24.	46	Teynampet .	• • •	104, Mount Road.
25.	50	Adayar .	• • •	Lattice Bridge Road.
26.	33	Ayurvedic	••	Model School Street, Thousand Lights.
27.	13	Mannady Unani .	•••	47, Linghi Chetty Street.
28.	18	Pulianthope,, .	••	55, Pulianthope High Road.
29.	31	Pudupet ,, .		1, Venkatachala Achari Street.
30.	39	Thiruvatteeswaranpe Unani	t	102, Thayar Sahib Street.
31.	3	Royapuram Siddha .	••	109, Adam Sahib Street.
32.	17	Choolai ".	••	16, Alathoor Subramania Achari Street.
33.	19	Otteri ".	••	1-B, Bashyam Reddy 1st Street.
34.	40	Chepauk Dispensary		Khana Bagh Street
35.	11	Muthialpet .	••	Geils Street, G.T.
36.	9	Seven Wells .	•••	1/50, St. Xavier Street.
37.	42	Triplicane	••	Gazette Begum Street.
38.	48	Saidapet	• • •	37, Sadayappa Chetty Street.
39.	4	Sanjeevirayanpet .	••	22, Kappal Polu Chetty Street,
40.	22	Aminjikarai .	••	37, Poonamallee High Road.
41.	36	T. Nagar	• •	16, Ragaviah Road.
42.	7	Basin Bridge	1	Basin Bridge Road.
43.	49	Guindy]	Maduvankari, Guindy

Clinics:—

Venerel Clinic ... 82/83, Strahans Road, Perambur.

Leprosy Clinics ... (1) Ice House Road (Beasant Road) Triplicane.

(2) Hope Lodge, Vysarpady.

Tuberculosis Clinics ... Pulianthope High Road
Government General Hospital
Government Stanley Hospital
Government Royapettah Hospital
Govt. Kasturba Gandhi Hospital

Laboratories :-

Public Health Clinical Laboratory Ripon Buildings (Tel. No.)

Public Analyst's Laboratory, Ripon Buildings (Tel. No.

Water Analyst's Laboratory, Kilpauk Water Works (Tel. No. 2202)

Malaria Laboratory, 17, Trevelyan Basin Water Works Street.

Hospitals :-

Infectious Diseases Hospital, Tiruvottiyur High Road, Tondiarpet, (Tel. No. 5317 and 51293)

Sri Tiruvoteeswar Tuberculosis Hospital, 391, Konnur High Road (Tel. No. 4887)

(Since handed over to the Government of Madras)

Other Institutions:-

Ashok Vihar, Health & Recreation Centre, People's Park (Tel. No. 4754)

Zoological Gardens, Peoples Park (Tel. No. 55314) Lethal Chamber, Basin Road.

Hearse—Corporation Lorry Station (Tel. No. 3457)
Special Home for the diseased and infirm, Krishnampet

(Tel. No. 86377)

Mid-day Meals Centres:—

- (1) Basin Bridge Road, Kondithope, North Range.
- (2) Iyah Mudaly Street, Chintadripet, Central Range (Tel. No. 85763)
- (3) Conran Smith Road, Gopalapuram—South Range.

Veterinary Dispensaries:—

Basin Bridge Road, Kondithope.
Barbers Bridge Road, Krishnampet.
Prasanna Vinayagar Koil Street, Mylapore.
Harris Road, Pudupet.

Corporation Cattle Yards:-

Basin Bridge Road, Kondithope.
Singanna Chetty Street, Chintadripet.
Vinaitheertha Vinayaga Mudali Street,
Kosapet.
Venkatarangam Pillai Street, Saidapet.

Slaughter Houses :-

Sheep and Cattle—

Gantz Road—Perambur Barracks. Alandur Road—Saidapet.

Pigs-

Junction of Basin Road and Pulianthope High Road.

Burial and Burning Grounds

Comin 1	Div:	1, 15) 1 - 10	
Serial No.	Division No.	Name of Burial Ground	Location
1	1	Kasimode Burial and Burning Ground.	Suryanarayana Chetty Street.
2	6		Melpattadai Ponnappa Mudali St., Perambur.
3	6	Manali Road Burial and Burning Ground.	Manali Road, Vyasar-
4	7	Washermenpet Burial and Burning Ground.	
5	17	Choolai Cremation Ground	-
6 4	20	Thangal Burial and Burning Ground.	Thangal, Sembiam.
7	20	Peravallur Burial and Burning Ground.	Peravallur, Sembiam.
8	20	Agaram Burial and Burning Ground.	Loco Works Road, Sembiam.
9	21	Vailangadu Burial and burning Ground.	Ayanavaram.
10	22	Halls Road Burial and Burning Ground.	and the state of t
11	23	Otteri Burial and Burning Ground	· · · · · · · · · · · · · · · · · · ·
12	34	Sterling Road Burial and Burning Ground.	Sterling Road, Chetpet.
13	35-A	Ground.	
14	35-A	Ground.	Near Saligramam, Kodambakkam.
15	35 - A	Kodambakkam Burial and Burning Ground.	Kodambakkam, near A.V.M. Studios.
16	35 - A	Nallankuppam Burial and Burning Ground.	Nallankuppam, West Mambalam.
17	35 - B	Aminjikarai Burial and Burning Ground.	Lime Kiln Street, Aminjikarai.
18	35-B	Ground.	Aminjikarai.
19	35-B	Naduvankarai Burial and Burning Ground.	do.
20	35 - B	Mullam Burial and Burning Ground.	do.
21	35-B	Periagudal Burial and Burning Ground.	do.
22	43	Krishnampet Burial and Burning Ground.	Gajapathy Lala Street and Dr. Beasant Road.
23	44	Mylapore Burial and Burning Ground.	South of Edward Elliots Road.
24	47-A	Burning Gronud.	•
25	48-B	Saidapet Burial and Burning Ground.	Jones Road, Saidapet.
26	49	Kottur Burial and Burning Ground.	Kottur, Guindy.

Serial No.	Division No.	Name of Burial Ground	Location
27	49	Zamin Adayar Burial and Burning Ground.	Adayar.
28	49	Kallikundram Burial and Burning Ground.	do.
29	49	Velacheri Burial and Burning Ground.	do.
30	50-B	Urur Burial and Burning Ground.	Urur Village, Adayar.
31	` 1	Muslim Burial Ground	Suriyanarayana Chetty Street, Royapuram.
32	1	do. Bhora Burial Ground	do.
33	1	do. Old Burial Ground	do.
34	1	do. Khoja Burial Ground	do.
35	22	Kilpauk Burial Ground	Shenoy Nagar.
36	1	Christian Cemetry	Suriyanarayana Chetty Street, Royapuram.
37	22	Kilpauk Cemetry	Shenoy Nagar.
38	50	Ellapatha Mada Koil Cemetry	St. Mary's Road, Mylapore.
39	1	Chinese Burial Ground	Suriyanarayana Chetty Street, Royapuram.
40	1	Jewish Burial Ground	do.
41	22	Buddist Burial Ground	Shenoy Nagar.

CHILD-WELFARE CENTRES AND CRECHES

Serial No.	Name of Centre	Division No.	Location
1	Tondiarpet	1	385, Thiruvotriyur High Road, Tondiarpet.
2	Palmyrah Kuppam	2	Near Corporation Model Lines, Palmyrah Kuppam.
3	Royapuram	3	26, Suriyanarayana Chetty Street, Royapuram.
.4	Sanjivirayanpet	4	21/22, Kappal Polu Chetty Street, Washermenpet.
5	Washermenpet	5	86, Thiruvotiyur High Road, Washermenpet.
6	Vyasarpadi	6	Bharathi Road, Perambur.
7	Peddunaickenpet.	8	18, Zinda Sahib Street, Peddunaickenpet.
8	George Town	9	44, Amman Koil Street, George Town.
9	Kothwal Bazaar.	10	1/27, Appu Maistry Street, George Town.
10	Muthialpet	11	175, Thambu Chetty Street, George Town
11	Treveleyan Basin.	16	52, Trevelyan Basin Street, Trevelyan Basin.
12	Maternity Home.	17	15, Vijayavigneswarar Koil Street, Choolai.
13	Pulianthope	18	1/33, Gantz Road, Pulianthope.
14	North Perambur.	19	54, Perambur High Road, Perambur.

am. varam.
varam.
varam.
varam.
et,
et,
Kosapet.
ad,
Daniamat
Periamet.
Market)
Road.
wn.
Street,
d Street,
Thousand
r Street,
am.
n.
riplicane.
eet, Zam
ane.
rporation
rporation
Saidapet.
ur.
layar.
entre.
len,
,
e.

And the second of the second o

...

Longitude: 80° 15′E

Meteorological Data of Madras City (Nungambakkam) For 1957

S	0.10" and over	_	0-00-400040-8
inche	No. of Rainy Days	13	
Rainfall in inches	Heaviest rainfall in 24 hours in inches	12.	0.00 0.00 0.36 0.38 1.00 1.92 1.00 0.10
Rainf	Total fall for the month in inches	111	0.00 0.20 0.00 0.00 0.40 1.39 5.48 3.59 8.59 8.59 16.63 0.11
Wind	Mean direction of wind in degrees from North at 08:30 Hours I.S.T.	10	NNNSSSSSSNNN NNNSSSSSSSSNNN 12487768888888888888888888888888888888888
Humidity	Percentage of Humidity at 08:30 Hours I.S.T.	6	78 73 67 72 69 69 74 72 81 82 76 73
	Difference between Mean temperature and Dew Point temperature at 08°30 Hours I.S.T. (6—7)	∞	4.1 6.1 6.1 10.0 8.5 6.4 7.3 4.0 70.9
(°F)	Mean Dew point 08:30 Hours I.S.T.	7	20.1 20.0 20.4 23.8 24.6 21.6 22.6 22.3 23.9 22.9 22.9 22.9
Temperature (°F)	Mean daily temperrature $\frac{1}{2}$ of Columns $(3+4)$	9	24.2 25.1 26.5 29.7 30.1 30.1 29.0 29.6 27.9 26.1 25.3 335.8
Tem	Mean daily Range Columns (3—4)	ς.	8.1 8.9 8.1 7.3 6.7 9.0 8.6 7.1 5.6 6.5 92.3
	Mean Mini- mum. °C	4	20.2 20.6 22.5 22.5 27.1 27.1 25.3 24.3 23.3 24.3 28.7
	Mean Maxi- mum. °C	3	28:2 29:5 30:5 30:5 32:4 34:1 36:1 34:4 34:4 32:9 33:9 28:9 28:5 380:8
Pressure	Mean Barometric pressure corrected for temperature and reduced to standard gravity and mean sea level in Millibars 08:30 Hours I.S.T.	2	1014.6 1013.7 1011.4 1011.2 1007.7 1006.0 1006.3 1008.3 1014.2 1014.2 1014.2 1014.2
	Month		January February March April May July August September October December Total Mean

1

13° 4′N

Latitude:

Births registered in each Division with rates during 1957

- 1	er of still. s Registered.	dmuV	- 94 183 183	109	£4446 £4146	32 33 34 6	43 105 34 47	65
,	of Deaths Births per noitslugo Pe	Excess Over 1,000 d	: : :					: :
	Deaths per-	Excess over 1,000 tion.	20.6	18.3	25.2 9.0 17.0 12.5 20.0	20.0 19.0 25.0 15.4 21.0	21.2 28.0 22.1 11.5 24.9	27.7
	er of males to every 100 es born.	horn lemaî	107.5	$\infty \infty$	92:2 100:4 114:7 92:6	111.6 98.7 120.4 103.1 108.6	103.1 109.1 98.0 109.4 101.8	103.5
	Births 1,000 of	Total	60.1	50.0	52.7 41.0 39.5 46.5	38.9 47.6 50.0 34.4 36.5	41.8 49.1 52.8 39.0 52.4	62.1
	Live per latio	Females	57.4 46.6 82.1	51.1	56.0 41.3 37.6 54.4	36.2 54.6 58.5 40.3 41.1	42.7 44.0 55.7 37.4 50.1	61.3
	Ratio of registered popu	Males	62.9	49.0 76.4	49.6 40.7 40.3 40.3	41.6 42.2 44.6 33.0	41.0 49.8 50.1 40.4 54.8	63.0
	Births	Total	1,886	2,566 2,536	1,307 932 1,211 1,256 1,256	1,018 761 639 520 557	1,221 2,600 2,333 1,149 1,586	1,791
	Number of Live registered	Females	909	1,264	680 465 564 652 491	481 383 290 256 267	601 1,243 1,180 549 786	088
	Number	Males	977	1,302	627 467 647 604	537 378 349 264 290	620 1,357 1,153 600 800	911
	rding 1951	Total	31,369	51,278	24,788 22,744 31,012 26,984	26,191 15,971 12,793 15,117 15,117	29,196 52,977 44,194 29,505 30,285	28,818
,	Population according to the census of 1951	Females	15,826 10,734	24,718 24,718 20,150	12,147 11,272 15,001 11,990	13,297 7,021 4,961 6,346 6,489	14,072 25,751 21,194 14,662 15,677	14,354
	Popula to the c	Males	15,543	26,660 26,660 16,456	12,641 11,472 16,011 14,994	12,894 8,950 7,832 8,771 8,782	15,124 27,226 23,000 14,843 14,608	14,464
			::	: : :	::::			::
	Name of Division.		New Washermenpet Royapuram	Sanjeevirayanpet Korukupet	Vyasarpady Basin Bridge Peddunaickenpet Seven Wells	Muthialpet Harbour Kachaleeswarar Koil Kothawal Bazaar Sowcarpet	Trevelyan Basin Choolai Pulianthope Perambur Barracks Sembium	Ayanavaram Kilpauk
	.oV, noisi	Div	-00		9/805		117 118 119 20	21 22

	33 24 27 27	29 174 46 46 78	820348	32 113 63 30	555 64 49 65	:	2650
: : :	31.6		:::::	:::::	:::::	:	:
20.0 21.8 21.5	19.1 23.0 .:. 22.0 20.6	28.0 29.3 30.2 30.2	22.0 24.0 22.1 27.0 33.8	19.0 22.3 22.4 24.8 21.3	20.4 26.5 17.6 15.4 33.7	:	18.43
105·3 110·5 126·3	112.3 107.5 108.0 107.0 114.5	93.2 102.4 113.1 99.0 110.2	105.0 105.0 107.3 96.0 106.1	102·7 106·6 104·8 112·3 95·6	109:3 104:8 99:9 96:8 106:8	:	104.47
39·1 49·1 38·0	39.0 39.0 31.0 40.2	46.0 120.1 50.4 44.4 58.9	45.2 43.0 43.5 50.4 51.4	40.0 46.0 54.0 46.3 39.3	46.5 50.5 40.3 35.7 60.8	:	48.87
41.8 47.7 32.1	39.0 41.5 34.2 41.6 39.0	50.6 119.1 48.3 48.3 58.1	45.0 42.7 42.6 52.5 52.8	42.6 47.4 56.0 39.6 41.0	47.2 52.1 42.5 40.5 60.9	:	49.84
36.8 50.5 44.6	39.0 36.8 28.5 37.0 41.6	41.8 121.1 52.5 41.1 59.6	45.4 43.1 45.0 47.2 50.1	36.8 44.7 52.4 54.6 37.6	45.8 49.1 38.4 31.9 60.6	:	47.97
1,201 1,947 663	1,229 720 503 763 1,066	1,283 2,006 1,581 1,218 2,186	965 1,002 1,256 1,532 1,247	1,056 1,151 2,387 1,794 1,011	1,555 1,788 1,389 622 1,706	:	69,197
585 925 293	579 347 242 369 497	664 991 742 612 1,040	471 489 606 782 605	521 557 1,166 845 517	743 873 695 316 825	:	33,842
616 1,022 370	650 373 261 394 569	619 1,015 839 606 1,146	494 513 650 750 642	535 594 1,221 949 494	812 915 694 306 881	:	35,355
30,746 39,634 17,434	31,563 18,482 16,235 19,558 26,497	27,940 16,704 31,342 27,407 37,134	21,373 23,344 28,672 30,363 24,267	26,277 25,044 44,180 38,734 25,745	33,477 35,392 34,466 17,416 28,098	2,280	14,16,056
14,008 19,407 9,136	14,835 8,358 7,075 8,876 12,809	13,126 8,319 15,345 12,668 17,908	10,487 11,443 14,224 14,485 11,449	12,240 11,749 20,873 21,351 12,608	15,736 16,762 16,373 7,812 13,548	528	6,79,043
16,738 20,227 8,298	16,728 10,124 9,160 10,682 13,688	14,814 8,385 15,997 14,739 19,226	10,886 11,901 14,448 15,878 12,818	14,537 13,295 23,307 17,383 13,137	17,741 18,630 18,093 9,604 14,550	1,752	7,37,013
Purasawalkanı Kosapet Vepery	Periamet Edapalayam Park Town Napier Park Chintadripet	Komaleswaranpet Egmore Thousand Lights Nungambakkam	Theagaraya Nagar(North) Royapettah Pudupakkam Thiruvatteswaranpet Chepauk	Triplicane Zam Bazaar Mirsahibpet Mylapore (North) Do (South)	Teynampet Theagaraya Nagar(South) Saidapet Guindy Adayar	Fort St. George	Total
23 25 25	328278	3223333	38 88 99 99	44444	444 60 74 84 84 84 84		1

Births registered in each division during each month in 1957.

6 6 6	Total number of Live Births Registered	1,886 1,036 3,070 2,566 2,536	1,307 932 1,211 1,256 1,008	1,018 761 639 520 557	1,221 2,600 2,333 1,149 1,586	1,791
	December	191 99 326 254 285	135 98 141 118 110	100 65 78 45 67	114 299 230 124 192	214
	November	185 781 221 220 250	115 73 104 83 83	62 53 53 54 56 57	106 215 199 96 102	155 116
	TedotoO	146 89 297 205 188	119 147 133 120 79	83 62 57 56 56	113 241 228 107 144	152
	September	147 94 282 285 198	111 31 71 110 89	63 64 74 55	109 206 142 88 117	158
	12uguA	, 157 93 232 187 211	25 70 89 89	06 07 08 04 08 08 08 08 08 08 08 08 08 08 08 08 08	97 227 181 76 127	161
	Ylul	129 89 222 197	100 81 115 114 98	844 84 84 84 84 84 84 84 84 84 84 84 84	102 196 196 116 117	153
	June	181 91 266 211 231	135 69 107 117 89	. 64 . 61 35 41	99 257 205 101 152	148
	May	182 98 256 224 220	109 78 127 102 101	103 84 55 52 49	121 231 206 98 153	164 128
	lingA	143 91 250 222 214	95 89 120 90	96 61 63 38 45	109 212 224 105 149	113
	Матсһ	178 88 266 220 239	130 77 97 103 53	82 71 53 46 54	100 200 210 63 133	148
	Hebruary	125 62 191 140 146	84 56 80 86 86	67 36 27 29	71 153 140 76 79	1115
	January	122 61 215 176 176	80 76 78 95	69 31 32 32	80 163 172 99 1111	110
						: :
	. uoj					
-	Name of Division	New Washermenpet Royapuram Singara Garden A Sanjeevirayanpe t Korukupet	6 Vyasarpady 7 Basin Bridge 8 Peddunaickenpet 9 Seven Wells 0 Ammen Koil	Muthialpet Harbour Kachaleeswarar Koil Kothawal Bazaar	Trevelyan Basin Choolai Bulianthope Perambur Barracks Sembium	21 Aynavaram 22 Kilpauk
J	oN noisivia	as he's a serious as	(, , , , , , , , , , , , , , , , , , ,		15155 C	10 KG

1,201 1,947 663	1,229 720 503 763 1,066	12,83 2,006 1,581 1,218 2,186	965 1,002 1,256 1,532 1,247	1,056 1,151 2,387 1,794 1,011	1,555 1,788 1,389 622 1,706	69,197
				****	97113	
122 205 65	146 82 48 74 105	162 275 176 151 257	120 117 124 152 116	123 120 234 180 110	158 176 153 55 164	7,392
93	107 67 54 62 85	108 209 114 90 171	81 124 129 142	118 110 260 181 95	134 187 132 49 161	6,047
106	103 62 42 58 108	124 213 160 119 169	89 103 140 88	85 101 168 161 84	139 154 88 88 57 181	6,182
105 140 51	124 54 43 43 107	95 162 106 99 168	91 102 129 170 116	65 76 190 160 88	150 109 . 94 43 150	5,701
100 163	82 35 87	91 119 98 194	84 61 102 102 95	94 103 188 132 65	1114 137 64 47 136	5,359
100 161 46	116 74 46 86 104	141 186 125 111 173	71 87 114 116	131 124 122 173 96	156 884 116 61 166	6,067
88 175 50	97 34 65 81	117 150 140 98 214	83 106 148 107	80 65 217 136 85	159 178 145 63 117	6,017
119 196 65	107 53 46 58 102	114 198 155 110 225	87 100 116 125 108	99 1114 178 178 97	136 159 134 54 160	6,334
114 166 52	95 71 76 91	106 160 144 110 173	76 79 139 94	92 113 225 157 72	133 141 148 51 122	5,870
119 159 45	96 42 42 74	103 118 139 95 167	88 93 99 1133 110	53 204 144 83	116 147 124 55 152	5,667
63 116 40	69 40 53 57	114 122 122 122	63 76 86 86	67 80 157 104 69	101 104 104 88 88	4,195
72 143 54	87 46 61 65	71 97 105 75 153	45 42 42 47 47 47	49 144 88 67	102 87 38 109	4,366
				: : : : :	· · · · · · · · · · · · · · · · · · ·	
						Total
			(North)		outh)	
		ranpet ghts kam am	Nagar (N n varanpet	th)	Nagar (South)	
kam	n rk	waranp Lights akkam skam	_ \ \ \ \ \ \ \ \	Triplicane Zam Bazaar Mirsahibpet Mylapore (North) Do (South)		
Purasawalka Kosapet Vepery	Periamet Edapalayam Park Town Napier Park Chintadripet	Komaleeswarar Egmore Thousand Ligh Nungambakkar Kodambakkam	Theagaraya l Royapettah Pudupakkam Tiruvatteesw Chepauk	Triplicane Zam Bazaar Mirsahibpet Mylapore (N Do (So	Teynampet Theagaraya Saidapet Guindy Adayar	
Purasaw Kosapet Vepery	Periamet Edapalay Park To Napier P Chintadr	Komale Egmore Thousar Nungan Kodaml	Theagara Royapett Pudupak Tiruvatte Chepauk	Trip Zam Mirs Myle Do	Teynamp Theagara Saidapet Guindy Adayar	
275	30 28 30 30 30	32 33 32 33 35 35 35 35 35 35 35 35 35 35 35 35	36 37 38 39 40	44444 122842	44 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	
h2						

Births registered among Principal Communities in each Division during 1957.

Total births	registered (excluding still births)	1,886 1,036 3,070 2,566 2,536	1,307 932 1,211 1,256 1,003	1,018 761 639 520 557	1,221 2,600 2,333 1,149 1,586	1,791
II nities	Females	909 500 1,528 1,264 1,279	680 465 564 652 491	481 383 290 256 267	601 1,243 1,180 549 786	880
All	Males	977 536 1,542 1,302 1,257	627 467 647 604 517	537 378 349 264 290	620 1,357 1,153 600 800	911
Others	Females	::-::	:::::	:::::	∞ : : : :	::
Ot	Males	:::	:::::	:::::	=::::	= : :
lims	Females	28 38 42 42 226	40 64 56	28 146 26 65 65	232 233 89 49	200
Muslims	Males	25 62 127 58 58 220	53 27 20 20 20 20 20 20 20 20 20 20 20 20 20	34 136 44 53	224 99 58	36
indus	Females	794 354 1,348 1,170 1,043	642 389 559 463 387	433 227 241 190 265	585 1,175 903 419 674	799
Hin	Males	869 369 1,335 1,196 1,015	589 383 642 510 397	482 228 288 206 286	1,309 879 457 685	808
ians	Females	86 96 80 80 48 10	332 20 24 20 20 20 20 20 20 20 20 20 20 20 20 20	20 10 22	6444 844 844	56
Indian Christians	Males	80 94 76 46 21	27 29 1 31 46	21 13 17 5	39 50 41 38	61 48
Anglo- Indians	Femalës	127 - 4 ::	:w :v o	::-::	2	٠c :
Ang	Males	3 10 2 1	40:04	:-:::	2	9:
Aliens	Females	:::::	:::::	::::::	: :: : ? :	:73
Ali	Males	:::::	:::::	:::::	:::7:	:2
			:::::	: : : : :		::
	Name of Division	New Washermenpet Royapuram Singara Garden Sanjeevirayanpet Korukupet	Vyasarpady Basin Bridge Peddunaickenpet Seven Wells Ammen Koil	Muthialpet Harbour Kachaleeswarar Koil Kothaval Bazaar Sowcarpet	Trevelyan Basin Choolai Pulianthope Perambur Barracks Sembium	Aynavaram Kilpauk
.oV	I noisivia	-0.04v	6 8 10	122244	16 17 18 19 20	21 22

	69,197	1,369 622 1,706	1,555 1,788 1,389	0 =	1,056 1,151 2,387	1,256	00	1,581 1,218 2,186	1,283 2,006	503 763 1.066	1,229	1,201 1,947 663
	33,842	316	743 873 695	845	521 557 1,166	, 606 782 605	471	742 612 1,040	664	242 369 497	579	585 925 293
69,197	35,355	306	812 915 694	949	535 594 1,221	650 750 642	494	839 606 1,146	619	261 394 569	650	616 1,022 370
30	112	: : :	- : :	⊢ :	: : :		: :	: :-	::	:::	::	:::
	18	: : :	:	? :	::::		: :	: : :	: :	:	::	:::
47	2,666	20 21	14 22 6	42	88 263	143 269 73	12	30	82	20	56	8 26 10
5,547	2,881	27	. 12 27 10	39	294	167 244 86	15	044	74	26		10 23 23
946	29,418	268	706 841 685	776	516 467 874	448 501 522	449	574 967	501	224 322 453	467	518 826 257
60,046	30,628	246	786 873 678	875	533 495 900	468 493 547	466	662 555 1,075	472	245 344 518	519	536 922 311
13	1,619	27 59	20 10 4	37	4700	10	10	31 42	77	14 25 20	42	57 65 22
3,31	1,694	233	13	44	27	13	13	35	70	30 ge	47	65 74 31
1	107		: : :	::	:::	:-:	: -	:	40,	:22	41 ::	285
22	114		:-:	:	:::	· : : :	:	-2-	m vn +	4 ::2	16	v w 4
0	20	2	~ ::	□ :	: : :		::	-7:	:01	: : :	::	:::
40	20	: :-	: : :	9 ::	:::	: : : :	::	- : :	: 1	: : :	: -	:::
:	:		(South)	::			(North)	: : :	: :		• •	:::
Grand Total	Total		pet rayanagar t	44 Mylapore (North) 45 Do. (South)	Triplicane Zam Baza Mirsahibp	Pudupakkam 39 Tiruvatteeswaranpet 40 Chepauk	Theagarayanagar Royapettah	34 Nungambakkam 35 Kodambakkam	Komaleeswa Egmore	28 Park Town 29 Napier Park 30 Chintadripet	- ' ' ' '	23 Purasawalkam 24 Kosapet 25 Vepery
118		7 41	4 1 1		7 7 7		(1) (1)	13 (43 (43)	നന	000	44	200

STATISTICS STATEMENT No. 5

Statement showing Area, Density of Population, Deaths, Infant Deaths with rates registered in each Division during 1957.

	ant	Grand Total	160.0 157.3 125.7 166.0 228.0	127.7 185.7 152.8 137.0 132.0	121.0 166.9 134.6 140.0 122.1	108·9 118·9 167·2 162·0 145·7	120.0
	of Infant egistered	Total	301 163 386 426 579	167 173 173 185 172 133	123 127 86 72 68	133 309 390 186 231	215
	U 4)	Females	140 70 179 215 272	90 77 80 76 51	30720	61 208 89 89 124	90
	Number Deaths Re	Males	161 93 207 211 307	77 96 105 96 82	63 67 51 40 38	72 172 182 97 107	125
	to every	Number of Males to 100 Femal	96.2 91.6 96.3 94.5 96.2	91.6 108.0 102.1 117.0 119.6	93.4 108.6 103.2 146.2 120.6	105.8 100.0 94.6 113.0 93.0	126.0
	Deaths 00 of tion	Total	40.0 30.0 32.8 31.7 57.7	27.5 32.0 22.0 34.0 22.8	19.0 29.0 25.0 19.0 15.5	20.7 21.0 30.7 27.4 27.5	34.5
	of 10 ula	Females	40.0 30.0 38.0 33.9 53.4	29·3 31·1 22·5 35·3 22·4	19.3 31.5 31.6 18.4 16.5	20°8 21°6 32°9 25°9 27°5	30.7
	Ratio per pop	Males	39·1 29·1 27·6 30·0 62·9	25·8 32·1 21·5 33·0 23·2	19.0 26.8 20.7 19.5 14.7	20.5 20.5 28.7 29.0 27.5	38.2
And the Party and State of the	Deaths cluding ths	[stoT	1,240 615 1,386 1,628 2,111	682 728 683 918 538	497 461 319 288 236	603 1,114 1,358 809 832	993
0	of l ex Bir	Females	632 321 706 837 1,076	. 356 350 338 423 245	257 221 157 117 107	293 557 698 380 431	440 270
THE PROPERTY OF STATE OF THE PARTY OF THE PA	Number registered Still	Males	608 294 680 791 1,035	326 378 345 495 293	240 240 162 171 129	310 557 660 429 401	553
unident seamont and a service of the	according s of 1951	Total	31,369 20,851 43,196 51,378 36,606	24,788 22,744 31,012 26,984 23,590	26,191 15,971 12,793 15,117 15,271	29,196 52,977 44,194 29,505 30,285	28,818
COLUMN TO SECURIT AND ASSESSMENT OF THE PERSON OF THE PERS	lation ac census o	Females	15,826 10,734 18,602 24,718 20,150	12,147 11,272 15,001 11,990 10,954	13,297 7,021 4,961 6,346 6,489	4 14,072 6 25,751 0 21,194 3 14,662 8 15,667	14,354
2000	Population to census	Males	15,543 10,117 24,594 26,660 16,456	12,641 11,472 16,011 14,994 12,636	12,984 8,950 7,832 8,771 8,782	15,124 27,226 23,000 14,843 14,608	14,464
1	er Acre	Density p	18·7 73·3 152·4 152·9 51·5	20.2 101.3 347.8 282.8 350.7	284.8 46.7 38.1 188.9 230.0	297.6 230.0 78.1 51.0 23.5	17.7
		Area in	1674-1120 284-4160 283-5200 335-9360 711-2320	1227·5200 201·9200 89·1520 95·4240 67·2640	91.9680 342.1440 335.6160 80.0000 66.4960	98·1120 230·4000 565·7600 579·2000 1288·1280	1670-4000 1826-6880
	Area	in Square Miles	2.6158 0.4444 0.4430 0.5249 1.1113	1.9180 0.3155 0.1393 0.1491 0.1051	0.1437 0.5346 0.5244 0.1250 0.1039	0.1533 0.3600 0.8840 0.9050 2.0127	2.6100
		Name of Division.	New Washermenpet Royapuram Singara Garden Sanjeevirayanpet Korukupet	Vyasarpady Basin Bridge Peddunaickenpet Seven Wells Ammen Koil	Muthialpet Harbour Kachaleeswarar Koil Kothawal Bazaar Sowcarpet	Trevelyan Basin Choolai Pulianthope Perambur Barracks Sembium	Aynavaram Kilpauk
	.oN	noisivia	10w4v	9 0,	1122112	16 17 17 20 20	21.

-	
<i>e</i> 1	

		-																	
6	139-79	9,671	4,548	5,123	104.4	0.92	26.50	25.49	36,783	17,996	18,787	14,16,056	6,73,043	737-013	55.10	31900-9920	49.8453	Total	
			1			1	l	1		1	1	2,280	528	1,752	ı	1		Fort St. George	
	158. 154. 164. 167. 140.	246 277 229 104 239	115 131 112 57 124	131 146 117 47 115	106.3 106.3 100.3 103.4 96.9	26·1 24·0 22·7 20·3 27·0	26.8 23.9 22.3 28.5	25.4 23.5 21.6 18.8 25.7	873 850 783 354 760	422 412 391 174 386	451 438 392 180 374	33,477 35,392 34,466 17,416 28,098	15,736 16,762 16,373 7,812 13,548	17,741 18,630 18,093 9,604 14,550	39.3 45.0 24.5 5.1 9.6	851.8400 788.4800 1409.2800 3407.3600 2949.1200	1.3310 1.2320 2.2020 5.3240 4.6080	Teynampet T. Nagar (South) Saidapet Guindy Adayar	•
	117	1,)) (7	100				0	C77	23,743	_	15,137	0.06	c1.c/7	4	Do. (South)	
00%07	127. 139. 161. 140. 119.	134 160 385 251 121	54 79 173 103 59	80 81 212 148 62	108.0 98.0 108.4 1114.7 95.0	20.4 23.6 31.6 21.6 18.0	21.5 25.5 32.1 18.2 19.0	19·5 22·0 31·2 25·7 17·1	547 592 1,398 835 462	263 299 671 389 237	284 293 727 446 225	26,777 25,044 44,180 38,734 25,745	12,240 11,749 20,873 21,351 12,608	14,537 13,295 23,307 17,383	237·7 281·3 98·6 81·0 93·6	112.6400 89.0240 448.0000 479.0400 275.1360	0.1760 0.1391 0.7000 0.7485 0.4299	Triplicane Zam Bazaar Mirsahibpet Mylapore (North) Do. (South)	
ν∞ν04	157. 108. 115. 130. 99.	152 109 145 199 124	77 59 56 97 73	75 50 89 102 51	100.0 100.9 121.3 117.4 96.3	23.0 19.0 21.7 23.4 17.6	23.6 19.2 19.7 22.6 18.9	22.7 19.0 23.6 24.2 16.3	494 442 622 711 426	247 220 281 327 217	247 222 341 384 209	21,373 23,344 28,762 30,363 24,267	10,487 11,443 14,224 14,485 11,449	10,886 11,901 14,448 15,878 12,818	32.2 67.5 200.2 45.2 126.5	663.0400 345.6000 143.2320 671.9360 191.8080	1.0360 0.5400 0.2238 1.0499 0.2997	T. Nagar (North) Royapettah Pudupakkam Thiruvateeswaranpet Chepauk	
2004	1111 89. 104. 130. 135.	143 179 164 158 296	70 93 65 66 66 135	73 86 99 92 161	88.0 107.2 100.3 94.0	18.2 25.0 21.2 22.3 28.7	18.4 27.0 20.9 24.1 30.7	18·1 23·6 21·4 20·8 26·8	509 423 663 611 1,065	241 225 320 305 549	268 198 343 306 516	27,940 16,704 31,342 27,407 37,134	13,126 8,319 15,345 12,668 17,908	14,814 8,385 15,997 14,739 19,226	137.2 33.8 36.3 31.0 13.8	203·5840 494·6560 863·6800 884·5440 2688·0000	0.3181 0.7729 1.3495 1.3821 4.2000	Komaleeswaranpet Egmore Thousand Lights Nungambakkam Kodambakkam	
4-000	116 111 111 184 101 122	143 80 93 77 130	31 34 35 35 35 35 35 35 35 35 35 35 35 35 35	71 40 40 71	97.8 104.9 223.6 101.2 107.6	19.9 16.0 62.5 17.0 19.6	21.4 17.2 44.4 18.6 19.6	18:5 14:9 76:6 15:6 19:7	627 295 1,016 332 521	317 144 314 165 251	310 151 702 167 270	31,563 18,482 16,235 19,558 26,497	14,835 8,358 7,075 8,876 12,809	16,728 10,124 9,160 10,682 13,688	87.0 265.0 74.6 101.8 299.1	362.6880 69.7600 217.6640 192.0640 88.5760	0.5667 0.1090 0.3401 0.3001 0.1384	Periamet Edapalayam Park Town Napier Park Chintadripet	
400	137. 168. 87.	165 327 58	84 152 30	81 175 28	95.4 89.5 101.4	19.2 27.3 16.5	21.6 29.5 15.6	17.2 25.3 17.5	590 1,084 288	302 572 143	288 512 145	30,746 39,634 17,434	14,008 19,407 9,136	16,738 20,227 8,298	110.4 221.2 63.2	278·5920 179·2000 275·8400	0.4353 0.2800 0.4310	Purasawalkam Kosapet Vepery	

Deaths registered in each Division during each month in 1957.

Deaths tered iding irths)	10 11 12 11 11	682 728 683 918 538	497 461 319 288 236	603 114 358 809 832	993 571 590
Total Deaths Registered (Excluding Still Births)	1,240 615 1,386 1,628 2,111	228628	44.222	603 1,114 1,358 809 832	26.00 St. 100
Decemper	126 68 134 143 185	81 92 61 84 70	258 288 288 298	59 118 145 86 100	84 44
November	117 32 141 166 219	67 64 74 80 31	24 31 111 18 18	48 91 62 68	38
October	84 43 102 126 154	62 56 72 101 47	26 26 25 17	82832	84 48 42
September	159 76 136 208 282	78 88 71 95 50	50 28 115 115	41 108 122 76 77	108 56 59
78uguA	104 166 147 178 244	68 78 67 53 50	2777	59 96 104 74 59	53
lul	131 54 105 119 163	45 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	2002451	40 105 96 65 72	91 51 53
lune	118 65 143 161 192	54 58 80 108 53	48488	85 127 128 77 83	110 56 65
May	 84 46 105 1114 123	94 4 8 8 8 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	22023	34 23 24 25 27 27 27 27 27 27 27 27 27 27 27 27 27	62 47 34
li1qA	82 39 100 127	41 46 32 38 38	48.7 44.7 6	46 80 100 45 58	59 37 38
Матсћ	71 30 115 115 108 150	33 7 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	288 238 1538	43 76 1115 63 58	94 46 46
February	80 47 89 103 131	39 55 40 67 41	20 20 20 20 20 20	38 93 119 66 79	96 43 66
January	84 49 79 102 141	248 38 37 37	37 27 21 11 24	58 74 135 85 67	77 32 68
visions					914
Names of Divisions	New Washermenpet Royapuram Singara Garden Sanjeevirayanpet Korukupet	Vyasarpady Basin Bridge Peddunaickenpet Seven Wells Ammen Koil	Muthialpet Harbour Kachaleeswarar Koil Kothawal Bazaar Sowcarpet	Trevelyan Basin Choolai Pulianthope Perambur Barracks Sembium	Aynavaram Kilpauk Purasawalkam
oN noisivid	-10w4n	901	<u> </u>	177 179 20 20 20 20 20 20 20 20 20 20 20 20 20	22 23 23 23

1,084	627 295 1,016 332 521	509 423 663 611 1,065	494 442 622 711 426	547 592 1,398 835 462	873 850 783 354 -760	36,783
103	72 113 34 50	51 56 68 62 137	54 57 40 40	55 71 147 99 53	114 91 70 86	3,849
94 24	46 32 70 30 48	38 35 42 82 82	35 26 59 57 45	61 53 121 55 44	94 69 48 26 56	3,053
71 22	82 82 82 84 82 82 83	44 48 48 81 81	37 48 48 35	54 43 127 66 31	77 67 78 28 67	2,974
98	58 31 23 38 38	51 51 54 102	33 33 45 41 41 41	43 115 77 40	80 79 69 58	3,556
89	44 116 96 26 47	32 30 49 54 92	51 40 35 46 28	38 51 111 50 50 25	. 58 74 72 34 51	3,155
91 24	39 100 29 36	44 42 102 102	51 43 72 35	53 56 122 76 43	73 68 62 36 69	3,023
115 26	67 36 33 65	54 36 67 76 101	58 56 81 81 44	53 78 179 98 46	76 101 80 28 82 82	3,899
74	47 29 28 37	28 31 55 45 86	33 22 83 33 33 33 33 33 33 33 33 33 33 33 33	35 38 105 60 60 38	\$28,85	2,647
177	48 20 86 31 32	462448	31 28 43 64 35	37 41 93 76 36	66 61 52 27 59	2,555
73	55 19 88 19 49	45 62 67 67	36 32 46 32 32	40 38 78 55 36	60 63 53 53	2,663
103	40 115 71 23 35	25 48 84 82 92	45 29 59 32 32	40 104 66 43	57 67 49 27 49	2,750
96	47 22 32 32 32	45 26 38 38 75	31 44 45 44 45 46 46 46 46 46 46 46 46 46 46 46 46 46	32 46 96 57 27	53 27 65 65	2,659
		:::::				:
						Total
	/am vn ark ipet	swaranpet d Lights bakkam akkam	Theagaraya Nagar (North) Royapettah Pudupakkam Thiruvatteswaranpet	ne 2aar bpet re (North) (South)	pet aya Nagar (South) t	
Kosapet Vepery	Periamet Edapalayam Park Town Napier Park Chintadripet	Konialeeswaran Egmore Thousand Ligh Nungambakkai Kodambakkam	Theagaraya I Royapettah Pudupakkam Thiruvattesw Chepauk	Triplicane Zam Bazaar Mirsahibpet Mylapore (P	Teynampet Theagaray Saidapet Guindy Adayar	
24 1 25 1	25 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	322 332 332 335 335 335 335 335 335 335	38 39 40	44 44 45 45 45 45	44 47 48 49 50	

Deaths registered among Principal Communities in each division during 1957.

Total	registered (excluding still births)	1,240 615 1,386 1,628 2,111	682 728 683 918 538	497 461 319 288 236	603 1,114 1,358 1,358 809 832	993
11 inities	Females	632 321 706 837 1,076	356 350 338 423 245	257 221 157 117 107	293 557 698 380 431	440
All	Males	608 294 680 791 1,035	326 378 345 495 293	240 240 162 171 129	310 557 660 429 401	553
Others	Lemales		:::::	::0::	-::::	::
Oth	Males	::-::	:::::	:::	9::::	::-
Muslims	Lemales	31 51 86 48 224	35 44 42 42	20 79 10 25 1	 88 86 39	~ %
Mus	Males	27 41. 83 53 231	46 1 1 49 47	15 82 12 41 1	11 161 69 32	24
lindus	Females	549 205 596 754 842	342 286 336 368 168	221 141 137 89 106	287 509 494 263 354	385
Hino	Males	534 208 572 700 790	307 304 342 419 209	217 151 145 127 127	301 526 464 330 333	504
ian	Females	50 24 34 10	11 16 13 33	16 3	33 31 34 24	.27
Indian	Males	33 33 14 14	17 27 27 19 35	∞v.m.m.⊢	2 119 335 30 25	25
Anglo- Indians	Females	78 :- :	-4 :r2		7	1
Ang	Males	42 :: 5 ::	: 87	:::	:- : ::	:
sus	Females	:: ":::::::::::::::::::::::::::::::::::	; ; ; ; ; ;			• •
Aliens	Males		: : : : :	: : : : :	:::::	::
	C		:::::			• •
	Name of Division	New Washermenpet Royapuram Singara Garden Sanjeevirayanpet Korukupet	Vyasarpady Basin Bridge Peddunaickenpet Seven Wells Ammen Coil	Muthialpet Harbour Kachaleeswarar Koil Kothawal Bazaar Sowcarpet	Trevelyan Basin Choolai Pulianthope Perambur Barracks Sembium	Ayanavarm Kilpauk
.oN	Division	-4w4v	01 0 01	1222451	16 17 19 20	21 22

288 288 3	627 1,016 1,016 332 521	509 423 663 661 611 1,065	494 442 622 7111 726	547 592 1,398 1,398 7	2 873 2 850 1 783 4 354 6 760	36,783	
302 572 143	317 144 314 314 165 251	241 225 320 330 349	247 220 281 281 327 217	263 299 671 389 237	422 412 391 386	17,996	783
288 512 145	310 151 702 167 270	268 198 343 306 516	247 222 341 384 209	284 293 727 225	451 438 392 180 374	18,787	36,
:::	::-::	:::::::	::::	:::::	:::::	5	20
:::		:-:::	-::-:	:::-:	::-,-:	15	
29 4	22 .:. 6 10 13	39 21 8 8 19 19	75 142 35	1 66 217 18 4	<u>w₩</u>	1,823	3,804
200	39 24 16	39 6 11 11 15	11 15 101 157 52	249 249 25 6	89496	1,981	3,8
259 506 125	244 144 144 215	168 204 251 268 515	235 187 201 180 175	261 231 442 359 202	409 394 383 155 352	15,176	991
260 444 119	224 151 648 151 233	199 179 274 260 482	228 177 232 218 154	282 210 464 407 194	435 429 386 163 334	15,815	30,5
37 28 12	41 15 9 21	30 12 13 13 13 13 13 13 13 13 13 13 13 13 13	212 4 4 6 6 6	30	10 5 9 26	868	79
27 42 142	75 : 34 · 18 · 18 · 18	23 4 8 1 9 1 9	386	13 10 25	31.00	881	1,779
6 6 7	0 :007	4-:::	:er — : :	:::-,:	::: -;	92	184
96	322: 13	- :00 :	:52	:::		92	1
:::				: : : : -	:::::	2	2
:::		::-::	:::::	:::0;	: : : : :	3	
			(orth)		iouth)		:
a m		anpet ights kam am	TheagarayaNagar(North) Royapettah Pudupakkam Thiruvatteswaranpet Chepauk	orth)	Nagar(South) 	Total	Total
yakk t	layam own Park	eswara e and Li mbakk nbakka	urayaN ettah akkam attesw uk	ane azaar iibpet ore (N	raya]	1	Grand
Purasawakk Kosapet Vepery	Periamet Edapalayam Park Town Napier Park Chintadripe	Komaleswaranpe Egmore Thousand Lights Nungambakkam Kodambakkam	TheagarayaN Royapettah Pudupakkam Thiruvatteswa Chepauk	Triplicane Zam Bazaar Mirsahibpet Mylapore (North Do. (South)	Teynampet Theagaraya Saidapet Guindy Adayar	1	
22,42	30 57 57 50 57 50 50 50 50 50 50 50 50 50 50 50 50 50	38383	338 339 40 40 40 40 40 40 40 40 40 40 40 40 40	44444	444 48 50 50	,	

682 728 683 918 538 497 319 288 236 603 358 809 832 832 Total of all ages Males & Totals of 632 321 706 837 ,076 356 350 338 423 245 257 221 157 117 107 293 557 698 380 431 Females 326 378 345 495 293 608 294 680 680 791 035 240 240 162 171 129 310 557 660 429 401 Males \$64 50 50 50 50 3623343 85 73 85 75 82 Females and above 67 63 81 55 51 26 35 26 35 75 48 105 141 126 73 115 100 89 85 85 Sixty years Males 18 18 18 18 18 18 18 16 225 18 18 18 04/40 2233722 Females Sixty years sex in each Division during 1957. and under 22822 22727 42446 Fifty years Males 33 24 25 25 25 25 Females Fifty years and under 32 33 37 37 31 38 55 55 55 15 25 18 18 18 138 Forty years Males 13133 54 50 50 50 50 39775 Forty years Females and under 1203861 31 33 33 36 36 10 17 17 13 2002 Thirty years Males 16 23 33 24 23 24 2223 10 10 7 4055 488 61 years. Females Thirty 5286 and under Males Twenty years to age and 83222 ∠∞040 ∞ ω ω ω years. Females Twenty w00w0 00000 and under Males Fifteen years Deaths registered according years. **Females** Fifteen and under Males Ten years 44 18 18 17 17 11 20 34 21 26 Females Ten years. and under 10 10 11 11 $\infty 0 \infty \omega$ 4 35 5 4 Five years Males 24 78 78 85 57 52139 65 163 224 107 90 202 98 223 265 329 Females years. eviH rebnu 82 69 88 62 62 63 30 37 42 130 130 60 204 99 80 175 72 169 228 316 One year and Males 61 208 89 89 124 90 77 80 76 51 30230 Females year. 182 Under 207 211 307 Males New Washermenpet Perambur Barracks Kachaleeswarar Koil ... Kothawal Bazaar... ىدىد. قر" د Singara Garden. Name of Division Peddunaickenpet Sanjeevirayanpet Frevelyan Basin Basin Bridge Korukupet Ammen Koil Seven Wells Pulianthope Vyasarpady Royapuram Muthilapet Sowcarpet Harbour Sembium Choolai

Females

627 295 1,016 332 521	509 423 663 611 1,065	494 442 622 7111 426	547 592 1,398 835 462	873 850 783 354 760	36,783	
317 144 314 165 251	241 225 320 305 549	247 220 281 327 217	263 299 671 389 237	422 412 391 174 386	7,996	83
310 151 702 167 270	268 198 343 306 516	247 222 341 384 209	284 293 727 446 225	438 392 180 374	8,787	37,78
337	51 20 54 66 105	35 65 70 40	62 59 116 80 63	66 32 59	211 1	4
37 37 48 48	26 53 66 100	25.50 4.00 8.80 8.80 8.80 8.80 8.80 8.80 8.8	55 104 41	65 67 37 63	243 3,	6,45
31888	11 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	47 9 2 6 1	118	19 25 25 13	(m)	29
24 1 9 1 2 4 2 4 2 4 5 4 5 4 5 4 5 4 5 4 5 6 5 6 5 6 5 6 5	386 222	335 12 13 13 13 13 13 13 13 13 13 13 13 13 13	22722	30 . 17 . 22 . 11 . 31 . 31	1	2,52
13 × 23 × 21	7.6426	92256	4677114	15 18 18 23 23	63,1,	87
18 24 24	25 2 4 4 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	24 24 24 24	20 27 20 20 20 20 20 20 20 20 20 20 20 20 20	24 24 118 123	10	2,18
17 8 7 7 10	13 13 22 25 25 25 25 25 25 25 25 25 25 25 25	10 7 18 15 16	9 15 15 6 6	17 22 21 6 6		9
23 105 12 18	90 118 118 117 117 118	10 17 26 4	92420	22 21 10 22 22	I s	2,006
427 61 10 11 10 11 11 11 11 11 11 11 11 11 11	7 5 5 7 4 5 7 4 0 4 0 4 0 4 0 4 0 4 0 4 0 4 0 4 0 4	24 6 10 10 10	25 25 25 26 27 27	29 13 17 20	164	9/
16 114 7 13	111 14 17 17 17 17 17 17 17 17 17 17 17 17 17	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	41 15 20 6	20 18 13 13	012 1,	2,17
16	1175	`0WL4∞	4000 :	0 4000	361	2
.wu8u4	44 w ∞ w	7 :∞ ٢	351728	2 64-0	301	662
71000	24440	m ⊘ : ∞ ⊢	2421-6	111 7 8 :: 6	1-9	9
2-124	מ היים יים	□ :w04	91799	38 8 9	240	536
11,81,12	19 19 25 25	40,110,00	\$25 825 825 825 825	13 13 17 17 17 17 17 17 17 17 17 17 17 17 17	825	15
10 26 7	1500 S	00 6 11 8	23 4 6 7 10 10 10	15 22 10 10 14	720	1,545
98 36 47 40 47	63 45 63 140	28 29 29 29 29 29 29 29 29 29 29 29 29 29	69 177 109 61	120 103 91 44 96	,754	7
66 21 67 57 57	35.68	59 66 66 81 42 42	58 63 118 115 42	121 105 100 41 78	253	9,01
346 337 337 336 336 337	70 93 65 135	56 59 77 73	54 79 173 103 59	115 131 112 57 124	548	71
71 40 71 71	73 86 99 92 161	75 50 89 102 51	80 81 148 62	131 146 117 47 115	,123	9,67
: : : : :	ipet ts	rtb)	th)-	agar		
n rrk oet	waraj Ligh akka kkam	(No th :am aranpo	ar et (Nor (Sou		taľ	al
net alaya Towi r Pa adrij	leesver resand amb	agar petta pakk nteesw auk	icane Baza Ihibp pore	umpe garay south pet ly ar	Tot	Tot
erial dape ark Vapie Shint	Coma Sgmo Thous Vung Coda	Raya Sudu hiruva	fripl Zam Airsa Ayla Do	heage (Saida sida suinc		Grand Tota
30 CP PP C 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	332 332 333 34 35 35 37 37	36 T 38 T 40 C	14444 125444 NN	46 T 47 T 48 S 49 C 50 A	4	0
	Periamet 71 72 66 69 10 16 2 7 3 6 16 12 10 8 7 5 13 8 37 34 151 144 29 Edapalayam 49 31 21 36 56 10 16 12 10 8 7 5 13 8 37 34 151 144 29 Park Town 57 36 67 54 26 11 27 9 36 16 114 43 105 54 93 23 96 31 81 1,01 Napier Park 40 37 74 7 12 4 3 4 13 11 18 10 24 8 48 61 270 251 52 2 7 18 8 19 10 36 39 167 251 52 2 7 11 18 10 24 8	Periamet 71 72 66 99 10 16 2 7 5 13 8 7 5 13 8 37 34 151 144 2 Edapalayam 49 31 21 36 55 13 8 19 10 8 7 5 13 8 37 34 151 144 2 Park Town 57 36 67 54 26 11 27 5 2 2 7 10 12 7 18 8 19 10 36 31 11,0 10 10 12 7 18 8 19 10 36 31 11,0 10 12 7 18 8 19 10 36 31 11 11 11 11 11 11 18 11 14 8 48 61 27 25 24 18 11 14 28 24 25 25 24 25	Periamet 71 72 66 69 10 16 2 7 3 6 16 12 10 8 7 5 13 8 37 34 151 144 2 100 100 100 100 100 100 100 100 100 1	Periamet 71 72 66 69 10 16 2 7 3 6 16 24 23 17 18 22 42 18 59 66 310 317 6 18 43 15 144 2 15 144 2 15 14 15 14 15 14 15 15 14 15 14 15 15 14 15 15 14 15 15 15 14 15 15 15 15 15 15 15 15 15 15 15 15 15	Perjament 71 72 66 69 10 16 2 7 3 6 16 42 13 18 22 42 18 59 66 310 317 6 16 2 18 18 2 19 18 37 34 151 144 2 18 18 18 18 18 18 18 18 18 18 18 18 18	Periamet

VITAL STATISTICS

Total Deaths Registered (excluding Still Births)	1,240 615 1,386 1,628 2,111	682 728 683 918 538	497 461 319 288 236	603 1,114 1,858 809 832	993 571 509
All other Canses	203 238 517 598 726	171 223 302 462 218	235 149 123 111 111	310 618 470 262 504	448 233 239
Maternal Deaths	1 2 16 7 6	2 1440	-27-	44- 4	∞ v
səirujal	1 8	10400		1 2	7
General Respiratory Diseases	40 5 196 472 369 466	173 183 144 144	109 123 82 80 48	135 221 284 164 154	195 123 201
Tuberculosis including T.B.	11	111 133 333 133	10 5 8 13	16 . 12 . 15 .	63 5 14
Diarrhoea	202 81 184 192 326	86 130 104 72 69	38 56 25 32 15	62 109 137 88 88 76	143 41 51
Dysentry	149 52 127 131 168	273 273 39 30	117 127 13 33 33 33 33 33 33 33 33 33 33 33 33	26 1111 611 43	. 72 57 57
Other Fevers	11 10 32 240 305	173 79 55 85 45	3478	37 40 324 214 28	56 90 14
Influenza	2 1 %	- -	7		17
Malaria		2		,	. -
Kala-azar			1.7	1,1711	1 1
Enteric Fever	2 6 4 0 5	21476	1317	-m404	Sunu
Measles		:::::			:
Small-pox	68 3 18 21	25 11 10 5	4 <i>C</i> 2	13 22 22 22 22 22 22 22 22 22 22 22 22 22	6
Cholera	83 21 15 48 76	10 12 14 35 35	10 10 10 10 10	01-0m0	
Plague					
Division Names of Divisions	1 New Washermenpet 2 Rayapuram 3 Singara Garden 4 Sanjeevirayanpet 5 Korukupet	6 Vyasarpady 7 Basin Bridge 8 Peddunaickenpet 9 Seven Wells 10 Ammen Koil	11 Muthialpet 12 Harbour 13 Kachaleeswarar Koil 14 Kothawal Bazaar 15 Sowcarpet	16 Trevelyan Basin 17 Choolai 18 Pulianthope 19 Perambur Barracks 20 Sembium	21 Ayanavaram 22 Kilpauk 23 Purasawakkam

1	~
	- /

1084 288 627	295 1016 332	521 502 423	663 611 1055	494 442 622	711 426 547	592 1398 835	462 873 850	354 760	36783
375 137 268	166 707 148	180 205 230	248 253 438	189 212 254	258 192 383	422 479 378	231 525 463	456 155 396	15821
<u>–4</u> –	122	107	9 ::	:-2	w v 4	777	38 ::	11 8 ::	150
- : :	16	:2:	::0	: :4	::-	E 21	214	21:	69
373 85 177	57 106 74	171 137 89	132 122 162	159 97 178	220 108 38	27 397 167	134 186 165	. 163 109 154	8604
39	6 72 10	000	. 60	10	13	13 20 11	9	964	69
145 28 70	39 101 41	73 29 29	70 57 117	53 222 36	394	48 271 132	10 67 65	32 24 24	4026
82 13 31 31	17 16 33	59 44 18	76 93	331	35 12 34	46.89	28 56 67	61 34 80	2640
51	23.8.2	20 28 38 38	123 119 215	36 67 92	114 69 30	26 128 60	38 10 69	38 17 94	3773
	:2:		→ : :	:::		:-2		: :-	792
:	.m	:::			::-			7 :::	- 1-8-
- : :		:::		::-	 : :	- : - :	-		10
2::0	, 20 	9	N-1-W	0 :4	100 m	100	4-0	777	187
13.	12::1	2 1	3	7	04.2	9	8 19 15	047	428 2
<u></u>	к —	::-	2 - 1 - 1	:- :	— <u>:</u> —	.90	———	17	414
							, , , , , , , , , , , , , , , , , , ,		
24 Kosapet 25 Vepery F 26 Periamet	27 Edapalayam 28 Park Town 29 Napier Park	30Chintadripet 31Komaleeswaranpet 32Egmore	33 Thousand Lights 34 Nungambakkam 35 Kodambakkam	36 Theagaroya Nagar (North) 37 Royapettah: 38 Pudupakkam	39 Thiruvatteeswaranpet 40 Chepauk 41 Triplicane	42 Zam Bazaar 43 Mirsahibpet 44 Mylapore (North)	45 Do. (South) 46 Teynampet 47 Theagaraya Nagar (South)	48 Saidapet 49 Guindy 50 Adayar	Total

Births, Death and Infant Deaths, with Rates by Months in 1957 and 1956.

	Infant Death Rate.	193.56	172-57	148.64	121:04	142.80	135.60	163.02	138.00	121-81	118·70	146.50	156.67	145:24
	Infant Deaths.	835	828	168	664	804	TTT	921	846	969	069	879	1,092	9,800
1956	Death Rate.	20.82	20:74	20.01	17.43	18.70	17.80	19.80	19.81	17.70	17.84	21.80	26.37	19-90
	Deaths Regis- tered Excluding Still Births.	2,958	2,945	2,843	2,475	2,659	2,525	2,816	2,819	2,513	2,534	3,094	3,746	33,927
-	Birth Rate.	30.37	33.80	36.24	38.62	39.64	40.34	40 20	43.21	40.20	41.00	42.24	48.50	39.59
	Births Regis- tered Excluding Still Births.	4,314	4,798	5,167	5,486	5,631	5,730	5,711	6,138	5,714	5,814	000'9	6,973	67,476
	Infant Deaths Rate.	160.33	162.81	119.30	113.63	118.88	146-75	144.88	173-54	165.76	118.89	133-79	136-77	139.76
	Infant Deaths.	700	. 683	929	299	753	883	879	930	945	735	608	1,011	9,671
1957	Death Rate.	18.14	18.76	18.17	17.44	18.06	26.65	20.63	21.53	24.27	20.30	20.83	26.27	20.92
	Deaths Registered Excluding Still Births.	2,659	2,750	2,663	2,555	2,647	3,899	3,023	3,155	3,556	2,974	3,053	3,849	36,783
	Birth Rate.	29.80	28.62	28.67	40.05	43.16	41.06	41.40	36.57	38.90	42.20	41.40	50.44	39.35
	Births Regis- teredExcluding Still Births.	4,366	4,195	2,667	5,870	6,334	6,017	6,067	5,359	5,701	6,182	6,047	7,392	69,197
	No.	:	:	:	•	:	A CONTRACTOR	•	:	•		:	:	•
	Months	January	February	March	April	May	June	July	August	September	October	November	December	Total

STATISTICS SUPPLEMENT No. 11 Births, Deaths and Infant deaths with rates registered among Principal Communities during 1957 compared with 1956

				•	**						
	}	Infant death rate	37.04	126.58	1111-27	188·20	143.40	83-33		145.24	
		Infant deaths registered		30	382	1,026	8,357	4.		9,800	
	:	Death Rate	9.13	10.27	16.68	24.22	24,90	1:22		23.90	-
	1956	Total number of deaths registered (excluding still Births)	14	136	1,591	3,398	28,776	. 12		33,927	
	1	Birth	17.60	18.00	36.00	38.55	20.86	147		47.65	
		Total number of Births registered (excluding still Births)	27	237	3,433	5,452	58,279	. 48		67,476	
	,	Infant death rate	25.00	144.80	125.57	212-73	133.93			139.76	
	:	Infant deaths registered		. 32	416	1,180	8,042	-		9,671	
	1	Death rate	3.22	13.90	18.65	27.11	26.82	2.03		20.92	
	1957	Total number of deaths registered (excluding still births)	5	184	1,779	3,804	30,991	20	,	36,783	And the state of t
Ť		Birth rate	26.10	16.68	34-73	39.53	53.70	3.00		39.35	design of statement of
	;	Total Ig number of births of registered excluding Still Births	40	221	3,313	5,547	60,046	30		69,197	100000000000000000000000000000000000000
		Population according to the census of 1951	1,534	13,247	95,387	140,319	1155,722	9,847		14,16,056	
		nmunity	Aliens	Anglo-Indians	Indian-Christians.	Muslims	Hindus	Others	,	Total	

Infant deaths among principal communities during 1957

Total of males anb females		**	. T	. 32	416	1,180	8,042	:	!	9,671
Total	Females		•	14	200	295	3,772	:		4,548
T	Males			18	216	618	4,270	:		5,123
ths and ne year	Females		:	9	. 76	204	1,258	•		1,544
Six months and under one year	Males		:	ν.	71	173	1,319	:		1,568
onth and six months	Females			m	59	213	1,241	•		1,516
1	Males		:	6	99	247	1,335	:		1,656
days and One none month under	Females		:	4	26	99	475	:		270
Seven da under or	Males		-	,	20	77	555	:	7	654
Under seven days	Females	i,	:	 .	39	08	200	:	,	918
Under	Males	,	:	#c	09	121	1,061	:		1,245
1	10		:	:	:	•	:			a1
inity	4							•		Total
Community			Aliens	Anglo-Indians	Indian Christians	Muslims	Hindus	Others		

STATISTICS SUPPLEMENT No. 13.

Infant Deaths from Principal Causes by age periods in 1957

Total Infant Deaths	Rate	22.37	12.66	32.80	32.17		100.00
Total	Deaths	2.77 2,163	7.03 1,224	3,172	3,112		15.969,671
Other	Pate			763 24.06 3,172	634 20.37 3,112		
Ot cal	Deaths	09	98				1,543
ntile ility nutri- pre- ure s etc.	Rate	84.79	872 71.24	7.03	1.61		2,755 28·50 377 3·90 2,979 30·80 1,543
Infantile Debility Malnutri- tions, pre- mature births etc.	Deaths	39 1.80 1,834 84.79	872	223	50		2,979
Convul- sions	Rate	1.80	35 2.86	8 6.87	85 2.73		3.90
	Deaths		35	1218)377
Diseases of the Respiratory system	Rate	7.54	76.6	11.82 1,174 37.01 218 6.87	14.69 1.296 41.65		28.50
Dises the R rat sys	Deaths	163	. 122	1,174	1.296		2,755
iar-	Rate	0.74	2.94	11.82			9.14
rh	Deaths	16	36	3.91 375	8.93 457		4.32884
Oysen- tery	Rate	:	1.30				
Dy	Deaths	1	16	124	.278		418
Other	Rate	2.36	4.09	7.79 124	7.94278	- 7	6.15 418
Ot	Deaths	51	50	247	247		595
Mala- ria	Rate	:	:	:	0.03 247	3	0.01 595
	Deaths	:	•	:	<u> </u>		1
Typ-hoid	Rate	•	:	•	90.0		0.05
	Deaths	:		90	2		3 2
Diph- theria	Deaths Rate		1 0.08	2 0.06	10 0.32		13 0.13
	Rate	:	•	•		0	:
Meas- fes	Deaths	:	•	:	:		
	Rate	•	0.49	1.42.	1.57		1.03
Small- pox	Deaths	•	9	45	49		
lera	Rate	•		0.03	0.10		0.04 100
Chol	Deaths	•	:		m		4
Age periods		Under one week	One week and under one month	One month and under six months	Six moths and under one year	1	Total

Infant Deaths from Principal Causes during each month in 1957

Total Infant Deaths	700	683	929	299	753	883	.628	930	945	735	608	1,011	9,671
Other causes	74	108	81	11	111	204	124	177	169	128	126	164	1,543
Infantile debility and Malnutritions including premature Births and other diseases of early infancy	253	245	236	224	246	264	257	238	227	208	267	314	2,979
Convulsions	18	17	23	25	37	32	41	40	46	24	33	41	377
Diseases of the Respiratory system	180	169	197	188	211	232	229	265	305	252	239	288	2,755
Diarrhoea	91	80	92	71	48	73	102	104	84	41	51	63	884
Dysentery	30	33	25	22			52		44	20	29	63	418
Other Fevers	51	30	27	46	65				99	53	48	58	595
Malaria	:	:	:	:	:	:	:	:	:	:	-	:	1
Enteric Fever	•	•	•	•	-	•	•	:	-	:	•	:	2
Diphtheria	2	•		2	•	:	-	2	:	-	m	-	13
Measles		•	:	:	•	:	•	:	:	:	:	:	
Small Pox		-	10	12	12	2	2	4	12	∞	, =	19	100
Cholera	:	:	:	:	:	:	:	2		:	-	, :	4
Months	January	February	March	April	May	June	July	August	September	October	November	December	Total

Statement of Live Births by age of mother and order of Live Births registered in order of confinement at Live Births during 1957.

	Total	183	10,818	21,796	20,777	10,430	4,478	519	38	6	5	4	—	4	135	69,197
	Not stated	•	57	95	117	89	38		2	:	:	•	•	•	7	385
	15 and above	:	:	:	•		3	8	:	:	:	•		•	-	6
	14.	•	•	:	-	7	9	4	:	:	:	:	:	•	:	13
	13	. :	:	•	-	12	13	9	;	. 2	. :	:	:	:	:	34
18	12	:	. :	:	5	31	41	18	2	:	:	:	:	:	:	97
e Birtl	11	:	:	4	14	73	160	35	m	:		:	:	:	:	290
t of Liv	10	:		7	46	191	300	59	4	•	•	:	•			609
nemen	6	:	:	14	145	454	483	82	9	2	:	:	:	—	—	1,188
f Confi	8	:	:	46	414	894	289	106	9	2	2	7	:		4	2,164
Order of Confinement of Live Births	7	:	:	204	1,182	1,427	759	62	2	2	-	-	:	-		3,642
0	9	:	7	489	2,278	1,850	643	49	2			:	:	:	9	5,326
	5	:	33	1,213	3,977	1,681	522	32	∞	:	:	•	:	:	18	7,484
	4	:	108	2,680	4,337	1,580	383	29	2	:	:	:	:	:	9	9,125
	3	:	953	5,157	3,994	1,167	210	11		:	:	•	:	:	20	11,513
	2	8	2,289	6,567	2,791	591	145	13	:	:	•	•	•	:	25	12,429
4		175	7,371	53,20	1,475	408	85	6	:	:	:	-	:	÷	45	14,889
ler		•	under	•	:	:	:	:	:	:	•	•	•	ove	:	•
Age of Mother	at Diffil	years		25	30	35	40	45						and at	pe	Total
Age c	al	Under 15 years	15 years and	20 ,,,	25 "	30 ,,	35 ,,	40 ,,	45 years	46 "	47 ,,	48 "	49 "	50 years and above	Not stated	T

STATISTICS SUPPLEMENT No. 16.

Deaths registered from Principal Causes with death rates during 1957 as compared with the previous five years

leaths	Rate	29.03	28.37	20.78	20.76	19.90	23.80	20.92
Total deaths	Deaths	43,207	43,753	33,181	34,264	33,927	37,667	36,783
All other causes	Rate	13.88	13·36	08.6	16.6	69.6	11-33	10.31
	Deaths	20,649	0.10 20,599	15,637	0.10 16,357	16,510	0.10 17,950	18,137
Maternal deaths	Rate	155 0.10	155 0.10	150 0.10	161 0.10	153 0.09		150 0.09
	Rate Deaths		0.34 15	0.31 15		0.29 15	0.32 15	0.30
Injuries	Desths	536 0.36	525	488	497 0:30	495	208	523
General Respira- tory diseases	Rate	37 6.81	10 6.50	98 5.14	42 4 93	91 4 51	36 5.58	8,604 4.89
	Deaths	12 10,137	31 10,010	8,198	8,142	1,691	9838	
Tuber- culosis including Tuber- culosis of lungs	Deaths	627 0.42	471 0.31	403 0.25	442 0.27	396 0.23	468 0:30	615 0.35
Diarrhoea	Rate	1.79	1.62	1.19	1.45	1.69	1.55	1.45
Diarr	Deaths	2,665	2,493	1,892	2,392	2,883	2,465	2,545
Dysentery	Rate	19 2.65	98 2.40	42 1.70	38 1.69	33 1.49	22 1.99	2,640 1 50
Dys	Desths	7 3,949	3,698	0 2,642	2,788	7 2,533	6 3,122	1
Other	Rate	3,823 2.57	4,684 3:04	3,115 2.00	3,191 1.93	3,022 1.77	3,567 2.26	2,520 1.43
	Rate Deaths	0.05 3,	0.00	0.07 3,	0.05 3,	0.02 3,		
Malaria	Deaths	75 0	0 96	105 0	75 0	33 0	77 0.05	18 0.01
Enteric	Rate	6.0.19	5 0.14	4 0.15	2 0.11	3 0.08	0 0.13	7 0.10
	Rate	0.004 276	215	0.003 234	182	143	0 001 210	0.001 187
Measles	Deaths	9		٠,٠	:		7	- 7
Small- pox	Rate	60.0	90.0	0.50	0.05	0.04	0 08	0.24
	Deaths	2 127	98	04 305	. 37	89	2 127	4 428
Cholera	Rate	182 0.12	709 0.46	7 0.004	• •		80 0.12	14 0.24
Plague	Rate	18	70	:	:		,180	414
Year	Deaths	1952	1953	1954	1955	956	Mean of the previous five years.	1957

Vaccinations performed during each month in 1957

			P ₁	Primary Vaccination	accination	n				Revaccination	nation		
Months		Numk	Number of Per Vaccinated	Persons ted		Results		Number of Revaccin	mber of Pers Revaccinated	Persons lated		Results	
		Males	Females	Total	Success- ful	Failure	Absent	Males	Females	Total	Succes- ful	Failure	Absent
January	:	2,448	2,422	4,870	4,848	-	. 21	11,436	11,861	23,297	992	17,484	5,047
February		2,935	2,910	5,845	5,840	:	· .	14,000	14,484	28,484	1,330	21,286	5,868
March	:	3,242	2,968	6,210	6,208	:	. 2	34,267	36,599	70,866	5,185	51,226	14,455
April	:	2,707	2,524	5,231	5,213	:	18	43,122	40,105	83,227	4,606	57,894	20,727
May	:	1,896	1,830	3,726	3,721	:	2	23,736	21,360	45,096	1,794	32,605	10,697
June	:	1,656	1,519	3,175	3,173	:	7	606'9	6,731	13,640	513	9,726	3,401
July	:	2,225	2,058	4,313	4,311	2	:	9,673	8,698	18,371	692	12,983	4,696
August	:	1,816	1,681	3,497	3,474	.:	23	9,366	8,971	18,337	737	13,653	3,947
September	•	1,704	1,646	3,350	3,349	:	-	7,445	7,678	15,123	720	11,155	3,248
October	:	2,120	2,063	4,183	4,174	-	∞	10,538	12,421	22,959	897	17,934	4,128
November	•	2,310	2,236	4,546	4,537		∞ ,	10,774	11,712	22,486	757	15,591	6,138
December	•	2,591	2,602	5,193	5,189	-	n	12,260	11,583	23,843	778	17,044	6,021
Total	:	27,680	26,459	54,139	54,037	9	96	193,526	192,203	3,85,729	18,775	2,78,581	88,373

STATISTICS SUPPLEMENT No. 18.

1957
during
Division
Di
ach
in each
∵ pa
orm
Vaccination perform
on p
atic
ccin
Va
_
ılar
Particulars of
Paı

srcentage successful ases in	hich results known	Revaccination	10.8 10.8 12.2 12.2 12.2 13.0 13.0 15.1 15.1 15.1 15.1 15.1 15.2 15.3 15.3 15.3 15.3 15.3 15.3 15.3 15.3	1.8
Percentage of successfu cases in	which the results were known		100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0	100.0
		Absent	2,588 1,247 1,621 3,656 3,656 1,245 2,218 1,013 8,36 2,048 2,048 2,039 2,039 2,039 2,039 2,038 2,038 2,150	726
	Result	Failure	4,357 3,443 7,999 3,928 4,842 3,453 4,322 8,710 2,687 2,687 2,687 2,565 7,921 11,748 9,518	7,779
nation		Successful	227 221 1,171 267 275 275 275 275 275 100 64 486 554 554 1,481 1,481 1,481	144
Revaccination		Total	7,472 4,911 10,791 7,851 5,914 4,356 5,662 11,140 5,750 3,862 5,221 5,887 6,910 6,910 6,910 8,339 21,267 12,145	8,642 6,106
	Total	Females	3,588 2,514 5,202 4,138 2,876 2,151 3,022 2,153 1,928 1,928 1,928 2,393 4,830 3,865 3,865 3,865 3,865 3,865 3,865 3,865	3,309
		Males	3,884 2,397 3,713 3,038 2,496 4,409 1,709 3,959 3,959 3,959 3,959 6,413	5,350
		Onknown	6	5
		Total	1,359 1,584 1,772 1,485 1,485 1,485 1,233 1,111 1,111 1,201 1,201 1,201 1,201 2,168 2,128	1,089
	njss	Ten years and above	1867-86-96-96	0 1
ation	Succes	Five years and under ten years.	11004010 11 11	9 1
Vaccinatio	Su	One year and under	383 190 396 459 459 167 170 170 170 170 170 170 170 170 170 17	4 220 5 219
		Under one yer	965 1,165 1,250 1,190 697 725 1,051 904 640 520 339 429 477 1,734 1,662	854
Primary		Total	1,359 1,584 1,772 1,485 1,485 998 1,233 1,111 1,111 1,111 559 638 638 1,240 1,240 1,240 2,183 2,128	1,089
	Total Total Females		224 2485 674 674 674 674 674 674 674 674	531
		Males	712 381 800 891 811 526 424 585 525 344 368 278 270 339 1,084	558
or of	nated	Total	8,831 5,667 12,375 9,623 7,399 5,354 6,861 4,620 5,932 6,446 6,366 10,953 7,548 9,579 14,273	9,738
number	persons vaccinated	Females	4,235 2,889 5,986 5,019 3,550 2,623 3,651 3,179 2,567 2,567 2,567 2,567 6,776 6,776	3,840
Total	person	Males	2,778 6,389 4,604 3,849 2,731 2,053 2,053 3,749 3,384 10,615	5,898
snsu	(90 I	Population as pe	31,369 20,851 43,196 51,378 36,606 22,744 31,012 26,984 26,984 15,971 15,971 15,117 15,271 15,117 15,117	29,505 30,285
	•	Division Name of Division	1 New Washermenpet 2 Royapuram 3 Singara Garden 4 Sanjeevirayanpet 5 Korukupet 6 Vyasarpadi 7 Basin Bridge 8 Peddunaickenpet 9 Seven Wells 11 Muthialpet 12 Harbour 13 Kachaleeswarar Koil 14 Kothawal Bazaar 15 Sowcarpet 16 Trevelyan Basin 17 Choolai 18 Pulianthope 18 Pulianthope	Barracks

	2	1		
16.3 10.2 10.2 10.2 10.2 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.3	11.7 3.6 3.4	3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	9.3 3.8 5.8	6.3
100.0 100.0 100.0 100.0 100.0 100.0 100.0	100.0 100.0 100.0	0.00.0000000000000000000000000000000000	100.00100.00100.001	6.66
1,338 1,591 1,591 1,456 1,456 1,472 2,120 1,506 1,506 2,495 2,495 2,495 2,478 2,478	877 716 1,477	1,760 948 1,514 1,058 1,237 853 1,714 2,616	2,695 2,961 556 4,852	88,373
2,663 6,379 6,458 7,359 2,400 5,777 1,966 5,424 6,044 6,044 6,044 6,044	6,054 2,714 5,575	5,837 2,626 2,539 2,606 7,387 9,775 4,036	13,552 10,244 4,676 6,191	2,78,581
518 482 500 839 437 205 1182 205 114 56 658 509	806 100 193	300 91 96 112 237 237 591 276 335	1,393 841 187 381	18,775
3,172 8,199 8,549 9,654 3,304 7,547 2,410 6,132 4,921 4,046 6,998 9,827 7,692 11,485	7,737 3,530 7,245	7,897 3,665 4,149 3,776 8,861 11,219 6,026 13,690	17,640 14,046 5,419 11,424	85,729
1,879 3,695 4,305 4,208 1,476 1,315 3,493 2,006 1,674 1,674 4,054 5,591	3,644 1,992 3,539	3,969 1,913 2,125 1,940 4,967 5,075 3,709 6,760	8,634 7,266 2,136 6,491	,92,203
1,993 4,504 5,446 1,828 1,095 2,915 2,915 3,690 3,690 3,699 5,894 5,894	4,093 1,538 3,706	3,928 1,752 2,024 1,836 3,894 6,144 6,930	9,006 6,780 3,283 4,933	1,93,526 1,92,
1,326 1,044 1,602 1,602 1,087 639 533 619 903 506 1,002 1,792	856 792 1,036	1,133 783 803 841 1,709 1,372 1,364	1,762 1,260 644 1,329	54,037 96
17. 13. 26. 1. 26. 1. 26. 1. 27. 27. 28. 29. 20. 20. 20. 20. 20. 20. 20. 20	44	15.4 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	57 33 1 16 12	832 18
265 183 165 165 244 138 98 178 163 163 292 419	269 113 228	224 198 186 110 382 224 187 270	423 263 107 347	1,138
1,044 1,044 1,331 1,331 494 494 726 734 416 1,117 697	573 672 804	890 576 608 723 1,302 1,119 596 1,078	1,282 963 521 970	42,049
1,326 1,045 1,045 1,602 1,602 1,087 619 903 1,375 1,002 1,792	856 792 1,036	1,133 783 803 841 1,709 1,372 1,364	1,762 1,260 644 1,329	54,139
665 461 168 168 275 275 482 307 470 470 487 858	414 385 533	550 383 402 441 845 641 396 648	802 609 335 622	26,459
661 544 834 834 835 836 837 837 837 837 837 837 837 837 837 837	442 407 503	583 400 401 400 864 731 405 716	960 651 309 707	27,680
5,198 9,121 9,594 11,256 3,859 8,634 3,049 6,665 5,540 7,139 7,504 11,202 8,694 13,277	8,593 4,322 8,281	9,030 4,448 4,952 4,617 10,570 12,591 6,827 15,054	19,402 15,306 6,063 12,753	4,39,868
2,544 4,156 4,806 1,751 1,751 2,313 2,095 3,469 6,449	4,058 2,377 4,072	4,519 0,296 2,527 2,381 5,812 5,716 4,105 7,408	9,436 7,875 2,471 7,113	2,18,662
2,654 4,788 6,280 2,108 2,908 4,123 6,828 6,828	4,535 1,945 4,209	4,511 2,425 2,425 4,758 6,875 7,646	9,966 7,431 3,592 5,640	2,21,206
28,818 22,916 30,746 30,746 31,434 17,434 11,434 18,482 16,235 19,558 26,497 27,940 16,704 31,342 37,134	21,373 23,344 28,672	30,363 24,267 26,777 25,044 44,180 38,734 33,477	35,392 34,466 17,416 28,098	14,16,056
	Nagar (North) Royapettah Pudupakkam Tiriwatteswaran.	pet. 40 Chepauk 41 Triplicane 42 Zam Bazzar 43 Mirsahibpet 44 Mylapore(North) 45 Do. (South) 46 Teynampet 67 T he a g a r a y a	Nagar (South). 48 Saidapet 49 Guindy 50 Adayar	Total

NATIONAL MALARIA CONTROL PROGRAMME

The size of spleen mass among children of age-groups 2-10 years in the control area in 1956 and 1957

																	A COLUMN A STATE OF THE ASSESSMENT OF THE ASSESS
								1956	9						1957		
Serial No.	Division No.	Locality			Sple	Spleen Size	ize		Total	AES		Spl	Spleen Size	size		Total	AES
	1			-	2	3	4	5	.t		-	2	3	4	5	4	
1	7	Basin Bridge	:	35	29	-	:	:	9	1.5	9	9	•	÷	:	12	1.5
2	∞	Peddunaickenpet	:	13	20		:	:	34	1.6	10	9	-	:	:	17	1.5
3	6	Seven Wells	:	22	10	:	:	:	32	1.3	16	7	:	:	:	23	-3
4	10	Amman Koil	:	15	18	2	:	÷	35	1.6	10	12	:	:	:	22	1.5
2	11	Muthialpet	:	12	13	-	:	:	56	1.6		9	:	:	:	17	13
9	12	Harbour		16	17	:	:	:	33	1.5	7	13	:	÷	:	20	9.1
7	13	Kachaleeswarar	:	14	15	-	:	:	30	1.6	10	11	:	:	:	21	1.5
∞	14	Kothawal Bazaar	:	14	18	:1	:	:	32	1.6	9	2	:	:	:	11	1.5
6	15	Sowcarpet	:	13	20	4	:	:	37	1.8	15	13	-	:	:	29	1.5
10	16	Trevelyan Basin	:	15	15	:	:	:	30	1:5	16	12	•	•	:	28	1.4
11	27	Edapalayam	:	24	33	-	/ :	÷	58	1.8	10	∞		:	:	18	7.
12	28	- Park Town	:	13	17	3	:	:	33	1.7	3	∞		:	:	12	1.8
		9														1	
-		Total	11	206	206 225	14	÷	:	445	1.6	120	107	3	•		230	1.5

NATIONAL MALARIA CONTROL PROGRAMME

and 1957	
1956	
Survey in	
Parasite S	
Malaria	

			Mixed	•	:	:	:	:	:	1	: :	9	:		:	\(\cdot\)
15 4	, , ,	sies	0	•	:	:	n •	-7		:	. 0	3	•	•	. •	:
		Species	M.T.		2	:	2	7	-	7	—	:		!	-	12
,44.	57	- 1	B.T.		:	-	ſį.	****	:				•	. 2	:	7
	1957	X	Parasite Index	6.0	1.6	6.0	1.6	1.9	1.2	1.9	2.5	6.0	1.2	2.0	1.3	1.5
450		Parasite Index	No. positive	1	7		2	7	—	m	. 2	_ —		7		19
	•	Par	Total No. of smears	104	128	115	129	106	98	152	92	102	98	86	75	1,273
	or American print from the production of the Control of the Contro		Mixed		:	•	•	:	•	:	:	•	:	:	6	
		Species	Ø	:	:	:	:	:	:	:	:	:	:	:	ĭ, :	•
	1	Spe	M.T.	3	1	2	1	4	7	1	.	7		2	. —	23
	26		B.T.	:	-	•	2	p-m4	-	:	-	y edited	:	-	*) * •	8
	1956	lex	Parasite Index	3.6	4.5	2.4	3.9	4.9	2.9	2.0	3.8	2.9	1.2	4.3	2.5	3.4
	:	Parasite Index	No. positive	4	2	7	n	5	3	—	4	n		3	—	32
	9	Par	Total No. of Smears	112	48	83	77	101	105	49	106	102	51	. 70	40	944
	1. 4	Locality		Basin Bridge	Peddunaickenpet	Seven Wells	Amman Koil	Muthialpet	Harbour	Katchaleeswarar	Kothawal Bazaar.	Sowcarpet	Trevelyan Basin	Edapalay am	Park Town	Total
		N Isir I noisi		1 7 Ba	2 8 Pe	3 9 Se	4 10 A	5 11 M	6 12 H	7 13 K	8 14 K	.9 15 Sc	10 16 Tı	11 27 EG	12 28 Pe	

Spleen Survey in 1956 and 1957

	Spleen Index	1.98	2.7	· 3.7	9.6	.2.8	*3.3	3.4		4.5	4.8	2.9	2.9	3,2 / 3,3
1957	Number found positive	2	.17	.23	22	12	20	21	Samuel Williams	29	28	18	12	230
n hours.	Number of Children examined	509	- 630	× 615	613	- 610	1 605	613		2. 2. 2	.578	919	407	7,170
7 2 2	Spleen Index %	10.3	9.9	5.4	7.5	5.9	0.9	4.81.5	4.9	5.8	4.9	10.3	7.3	9.9
1956	Number found positive	. 65	34	32	- 35	56	33	30	32	37.	30	58	3.7 Samp	444
	Number of Children examined	631	517	594	465	436	549	622	. 649	655	614	2995	440	6,738
	Locality	Basin Bridge	Peddunaickenpet	Seven Wells	Amman Koil	Muthialpet	Harbour	Kothawal Bazaar	Kachaleeswarar	Sowcarpet	Trevelyan Basin	Edapalayam	Park Town	Total
	Division No.	7	∞	6	10	П	12	13	14	15	16	27	28	
	Serial No.	-	2	е.	4	2	9	7	°00 /		10	-	12	

NATIONAL MALARIA CONTROL PROGRAMME

Spraying particulars in the year 1957 as compared with 1956

				Houses	Houses sprayed	Houses Missed	Aissed	DDT co	DDT consumed	,
No.	Locality		Population							Remarks
	191	ř		1956	1957	1956	1957	1956	1957	
4 Sanjeevirayanpet	yanpet		51,378	•	3,284	:	121	Lbs.	Lbs. 8,948	
5 Korukupet			36,606	:	6,588	:	356	:	098'6	,
7 Basin Bridge	lge	•	22,744	2,618	2,020	448	488	2,893	2,524	
8 Peddunai	dunaickenpet	:	31,012	1,260	1,081	267	415,	4,208	3,050	05
9 Seven Wells	ells	4 .	26,984	1,555	1,478	493	561	3,398	3,382	
10 Amman Koil	Koil	•	23,590	1,371	1,366	352	400	2,400	208	Dieldrin 667
1 Muthialpet	et	•	26,191	1,426	1,220	380	501	4,096	3,398	LOS.
2 Harbour		:	15,971	1,789	1,927	187	262	2,446	2,168	\$1.
13 Kachalee	haleeswarar	:	12,793	1,587	1,895	302	287	2,942	2,392	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Kothaw	Kothawal Bazaar	•	15,117	1,969	1,124	203	149	4,468	1,912	
15 Sowcarpet	et	:	15,271	1,447	915	774	251	4,531	2,040	twice in 1930
16 Trevely	velyan Basin		29,196	2,692	1,776	852 a	294	6,194	2,746	2000
27 Edapalayam	/am	:	18,482	841	981	157	203	2,400	2,800	1
28 Park Town	wn		16,235	1,180	1,371	324	281	2,234	2,192	Dieldrin 667
	Total	al	3,41,570	19,735	27,026	5,009	4,569	42,120	47,920	LU3.

NATIONAL MALARIA CONTROL PROGRAMME

Consolidated Data for Anopheles Adult Collection for the year 1957.

ſ		<.		1		•				1		\$ 3.0 <u>c</u>
	Total	7 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6			0.59		/	::	31-93	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	:	18.47
	Dec.		0.24		:		2	: :	33-82	. 444	- :	46·1
, s	Nov.	· .	:::::	::	1.6			::	87.71	•	Arms Sang	73.5
1	Oct.		1.2	, i	:				133-33			114·3
ı	Sep.		0.21	::	0.0		-	::	13.68		7	•
	Aug.		: : :	: :	:	<u>.</u>	:	: :	25.83		• • • • • • • • • • • • • • • • • • • •	
	July	پەر	0.23	::	0.7		:	: :	21-77		:	=
	June				0.7		:	: :	19.1		•	: - :
	May.				i		:	: :	9.72		:	: :
	Apr.	-		::	:			: :	28.54	e	:	
	Mar.			::			:	::	25.4		:	
	Feb.		• • •		:		ph .	: :	20.21		:	18.4
	Jan.			: :	:		:	: :	11.63		:	11.2
	Months	Sprayed Area. Human and Mixed dwelling for 10 man	A. Culicifacies A. Stephensi All species including Vectors	Cattle sheds for 10 man hours A. Culicifacies A. Stephensi All species including			dwelling for 10 man hours	A. Stephensi	Vectors	Cattle sheds for 10 man	A. Culicifacies	All species including Vectors

					,									
		Total No. of entrants & regulars	əgrin	Perce	10.5302	7·1928 8·5822 2·1682	0.2880	0.0518 0.0148	2.5086	1.3468	1.6872	7.9772	2.3552	Nil 0-2286
		Tota of er & reg	o Stive	N	1423 1	NMM		127		77	228	0 00	318	Niil 39
				1956-57	12.219	5.635 12.0218 2:3797	0.2836	0.0247	2.4537	1.4673	1.2577	8.4214	2.4533	Nil 0.2713
	Girls	Regulars	Percentage	1957–58	11.3236	6.7555 9.0134 1.8870	3.2516	0.0629	2.0757	1.2346	1.3467	6.8661	2.2267	Nil 0.2390
DESCRIPTION OF THE PERSON OF T	·55		olive		890	537 699 150	20	:	165	98	115	545	177	11N 19
200		rs.	ntage	1956-57	10.3488	7.6140 8.2202 2.3373	0.1811	0.0147	2.7342	1.3965	1.4523	9.6162	3.0456	Nil 0:4089
		Entrants	Percentage	1957–58	9.5246	6.7865 8.1266 2.5597	0.3401	0.0358	3.1446	1.4936	2.0227	9.5407	2.5179	Nil 0.3580
				pəjəp N	533	435 454 143	19	00	174	84	113	533	141	Nii 20
STATE OF THE PERSON NAMED IN		fotal No. fentrants regulars	əgsin	:	10.8601	0.1641 7.0027 2.7666	0.1801	0.0261	0.4002	0.6264	2:2794	5.2722	3-0276	Nil 0.1479
INSTRUMENTAL SCHOOL		Tota ofen & reg	o	N	1161	1170 1 806 318							348	Niil 26
Careta and and and and and and and and and an		,	ıtage	1956–57	11.0383	13.4279 5.0801 2.3991	0.1941	0.0121	0.3504	0.2781	3.7846	5.9679	2.2198	Nil 0.3504
AND SECULATION OF THE PARTY OF	ys	Regulars	Percentage	1957–58	8.3768	9.9594 7.1178 2.2635	0.4779	0.0028	0.0812	CIC	13		2.9427	9960.0
- Commentarian	Boy		lo. Stive	oələb	666	792 566 180	7 23	7	29	44	160	396	234	Niil
		· ·		1956-57	12.1326	14.0598 5.8692 2.5550	0.1460		0.3066	0.3066	2.7230	5.8400	2.3506	Nil 0:3504
CHANCE CHANGE CONTRACTOR CONTRACT		Entrants	Percentage	1957–58	13.9098	10.6209 6.7434 3.8774	0.1671	0.0057	0.00477	0.0786	2.8659	5.9005	3.2931	Nil 0.0280
			o evito	oeleb N	495	378 240 138	90	77	17	338	102	210	114	19 19
		a no transport of	Defects	A. Secondario	Malnutrition Dirty Head & Body	• • • •		ring	Circulatory system	Respiratory system	d join	system. System. IoInfectious and	contagious diseases.	18 Vaccination
	•	No.	Serial		1 Malnu 2 Dirty	3 Teeth 4 Nose 5 Eye D	6Visio 7Ear	8 Hearing 9 Speech	10Circa 11Tube	12Resp 13 Ahd		sy:	conta 17 Other	18 Vacc 19 Def c

MEDICAL INSPECTION

Group		No. or	n Roll	Aver Da Atten	ily	Exar	o. mined	No.De	efective	Perce	entage
•		Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
		7,239							2,685		
Regular	•••	6,711	10,381	5,711	9,265	7,952	7.948	2,587	3,283	32.532	41.306
Total	•••	13,950	18,089	12,511	16,397	11,511	13,544	3,900	5,968	38.87	44.063

STATISTICS SUPPLEMENT No. 25

Sex		No. treated at School	No. sent to Corporation Dispensaries	No. referred to Government Hospital	No. referred to Govt. Opthalmic Hospital	No. referred to Tuberclosis Hospital	No. of parents met	No. of revisits paid to Schools	No. of reexamiation of children
Boys	• • •	2,633	229	517	41	6	430	87	3,349
Girls	• • •	4,283	614	433	59	8	361	145	12,376
Total	• • •	6,916	843	950	100	14	791	235	15,725

Treatment Table

Height and Weight Tables

Age	Average in inc	Height ches	Average in po		Quinqu Average in in	Height	Quinqu Average in po	Weight
in years	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
6	39.10	39.91	34.69	33.43	40.17	40.18	33.76	32.43
7	41.14	43.06	35.27	34.90	42.03	42.59	35.81	34.59
8	43.29	44.82	36.91	38.55	44.15	44.05	38.35	37.54
9	45.45	46.76	41.55	42.20	46.18	46.14	42.39	44.77
10	47.41	48.87	44.96	48.65	47.95	48.27	45.64	44.43
11	48.56	50.48	48.15	50.93	49.41	50.40	49.29	48.57
12	50.32	52.15	51.12	52.61	50.84	52.40	51.57	52.55
13	52.34	53.78	54. 84	57.65	52.65	54.16	54.71	58.76
14	54.06	56.66	59.44	62.44	54.57	56.64	59.41	67.25
15	56.47	58.01	64.62	73.75	56.51	58.62	64.96	74.94
16	58.26	59.65	65.96	81.38	58.26	59.65	65.96	81.38
							J.	

MEDICAL RELIEF

1 -	
1957.	
Details of cases admitted and treated at the Infectious Diseases Hospital, Tondiarpet, during 1957.	
t, d1	ų q
rpe	
ndia	
al, Tc	
ospita	
es H	
iseas	
ous D	
fection	
he In	
lat t	
eatec	Charles and Commerce
nd tr	
ted a	ACCIONATION
dmit	7.
rses a	
of ca	
tails	
De	

Tma o x	117	13,815	1,190	15,176	13,640	1,210	:	326
Total							2	
rzuənyuz	- N:I	2,631	91	2,722	2,709	-13	0.5	:.
Contacts	23	2,273	:	2,296	2,238	:	:	58
	- 2	220 2	. 09	282 2		63	<u>4</u>	2
Other Diseases		22	9	28	214	9	22-34	
Mhooping Cough	:	:	<u>.</u>	:	:	:	:	:
Diphtheria	:	:	:	:	:	:	:	:
bionqyT	:	}	:		:		100	:
G.E. Chronic Entrities, T.B. Entrities and Dysentries.	18	2,264	321	2,603	2,179	414	15.1	, 10
		50	108	37	1,746	381	17.8	10
Cholera		2,029		2,137	- 1		17	0
sdwnM		13	₩		17	:	:	:
Measles	13	705	45	763	759.	•	•	4
	106	76	144	47	4			33
Chicken-pox		2,097		2,347	2,314	: '	:	
Small-pox	9	1,582	420	2,008	1,464	338	11.44	979
	uo	:	.!.	I	•	:	:	uo
•	pital		**	ye				oita]
	Hospital		ssil	g the				Hospital
r	the (City	Mofussil	treated during	***************************************	Type as any the set on the		the (
cula	in iight	<u> </u>	ر	ed d			4	in ight)
Particulars	ned Iid-r	itte	7 tc	treal	·	died	ntage	ined [id-n
	emai 56 (N	admitted	57		arge		ercer	rema 57 (M
<i>f</i>	er re	ie.	12—	Z'um	lisch	Vum	ty po	er 1
	Number remained in (31—12—56 (Mid-night)	umbe	from 1—1—31—12—57	Total Number	Total discharged	Total Number	Motality perce	Number remained in 31—12—57 (Mid-night
1	Ż	Ź		Tc	T	Tc	Z	Z

Comparative Statement of the Out-turn of Work in Dispensaries during 1956 and 1957.

System of Treatment		105 Allopathic 179 21 Siddha 157 Allopathic 200 ",	17 12 3, 3, 42 19 3, 3, 42	43 "." 34 " 21 Unani 267 Allopathic 93 ".	10 Siddha 33 Allopathic 30 Unani 52 Siddha 349 Allopathic	,
enoitsraqO 1	oniM	105 179 21 157 1,200	€ — :	- 7	2,2	
S ⊗	1957	39,342 31,483 43,712 17,633	36,072 54,995 5,813 47,174 30,275	43,377 25,170 18,313 37,874 28,234	75,822 1,14,735 39,796 52,544 58,764	
New	1956	35,291 39,733 35,291 5,678	32,810 54,716 60,904 13,238	42,340 25,561 21,295 40,057 34,962	75,085 1,10,443 39,700 52,644 61,021	
al lance	1957	69,054 58,829 77,319 38,626 1,40,636	71,842 94,967 11,464 99'535 75,571	86,201 54,987 42,481 78,943 53,611	1,66,551 1,89,191 68,902 92,063 1,13,820	
Total	1956	64,605 65,005 64,505 282	67,088 86,577 1,12,855 28,786	90,443 51,576 48,050 85,031 64,382	1,67,171 1,01,609 67,604 96,224 1,06,598	
pəş	influe trear	 185 410 18,262	682 4,437 168 6,788 5,599	1,250 522 731 5,482	2,265 1,248 10 509	7
Location		Rayapuram 2/87, Soorya Narayana Chetty Street Palmyrah Kuppam Kalmandapam Road Rayapuram Siddha 109, Adam Sahib Street Sanjeevirayanpet 22, Kappalpolu Chetty Street 85, Thiruvotriyur High Road	' Hope Lodge', Gantz Road 55, Madhavaram High Road Basin Bridge Road 284, Mint Street 1/50, St. Xavier Street	Muthialpet Harbour Mannadi Unani MafuskhanGarden 55, Thatha Muthiappan Street Trevelyan Basin Road	Choolai Siddha Rotler Street Rotler Street Pulianthope Unani 55, Pulianthope High Road Otteri Siddha Sembian	
No. Name of the Dispensaries	Year	1 11924 Rayapuram 2 21952 Palmyrah Kuppam 3 31945 Rayapuram Siddha 4 41957 Sanjeevirayanpet 5 51913 Washermenpet	6 6 1929 Vyasarpadi 7 6 1928 Perambur 8 7 1957 Basin Bridge 9 8 1923 Mint 10 9 1956 Seven Wells	11 11 1955 Muthialpet 12 12 1929 Harbour 13 13 1938 Mannadi Unani 14 14 1923 MafuskhanGarder 15 15 1919 Trevelyan Basin	16 17 1931 Choolai Siddha 17 17 1899 Balaiah Naidu 18 18 1930 Pulianthope Unan 19 19 1931 Otteri Siddha 20 20 1946 Sembiana	

MEDICAL RELIEF

MEDICAL RELIEF

Comparative Statement of the Out-turn of Work in Dispensaries during 1956 and 1957.

	System of Treatment		Unani Allopathic Ayurvedic Ayurvedic Allopathic " " " Unani " " " " " " " " " " " " " " " " " " "		
	anoitsraqO ron	iM	339 278 589 149 149 120 120 120 130 139 139	287	9,661
	w es	1937	37,554 49,087 13,422 28,932 38,375 47,416 27,2737 27,273 51,915 51,915 52,849 52,849 52,849 52,849		16,75,037
	New Cases	0661	39,809 47,494 47,032 47,498 47,498 46,839 26,308 3,305 41,133 40,562 41,313 50,736 46,697		16,36,269
	tal dance	1661	70,056 92,382 86,892 1,35,856 58,289 77,920 1,05,906 91,253 37,071 1,09,607 1,09,607 1,09,607 88,133 98,040 69,625 88,133 88,133 88,133		95,157 30,64,430 34,30,333
	Total Attendance	0061	70,285 98,515 87,597 1,40,336 51,060 68,130 1,02,390 1,02,390 1,02,390 1,02,390 1,02,390 1,02,390 1,02,390 1,02,390 1,02,390 1,08,401 94,576 35,698 94,576 94,045 98,904	23,014	30,64,430
	nfluenza cases treated	ıΙ	13,422 7,243 1,743 1,822 1,822 4,764 869 646 646 384 2,920 2,756 1,061 1,061	2,590	95,157
	Location		8 Ayanavaram 8 Ayanavaram 9 Kosapet 9 Kosapet 9 Kilpauk 9 Chintadripet 9 Chintadripet 9 Chintadripet 1, Venkatachala Achari Street 9 Egmore 1, Venkatachala Achari Street 1, Venkatachala Achari Street 1, Venkatachala Achari Street 1, Venkatachala Achari Street 2/61, Arunachala Achari Street 3 Rodambakkam 107, Arcot Road 108, Road 109, Road 100, Rutcheri Road 101, Rutcheri Road 101, Rutcheri Road 102, Mount Road 103, Sivagnanam Road 104, Mount Road 106, Mount Road 107, Mount Road 108, Mount Road 109, Mount	1/A. Sathanipet, Maduvankarai 1/A. Greenaways Road	Total
	Name of the Dispensaries	P.A.	1948 Ayanavaram 1929 Kosapet 1919 Kilpauk 1909 Chintadripet 1939 Pudupet Unani 1923 Egmore 1930 Thousandlights 1923 Nungambakkam 1948 Kodambakkam 1956 Amjikarai 1957 Thiruvatteeswaranpet 1957 Chepauk 1918 Triplicane 1955 Chepauk 1918 Triplicane 1956 Zam Bazaar 1956 Zam Bazaar 1957 Teynampet 1927 Teynampet	y 0 0 0	
	oN noisiv		33, 33, 33, 35, 55, 55, 55, 55, 55, 55,		
)	ial No.	əs 1	22222222222222222222222222222222222222	43 44	

					39								
	1956	Percentage of adul- terated samples	42.1	24.8	10.4	21.5	5.6	1.4	24.6	16.9		28.6	32.7
		Number of samples	3,251	432	627	395	39	139	187	77	4	119	5,270
	1955	Percentage of adul- terated samples	50.1	31.1	24.0	20.1	15.4	7.1	47.8	:	33.3	9.55	40.7
	19	Number of samples	3,002	498	742	343	13	154	138	23	6	108	5,030
	1954	Percentage of adul- terated samples	56.1	.36·1	27.1	33.8	4:1	7.4	2.95	14.3	19.4	51.9	45.5
	19	Number of samples analysed	3,141	601	798	201	123	163	120	21	31	104	5,303
	53	Percentage of adul- seldmas betaret	2.99	30.3	19·3	14.5	3.3	2.8	32.3	:	19.0	9.15	44.8
	1953	Number of samples	 3,338	089	910	331	30	143	127	31	21	124	5,735
		Percentage of adul- terated samples	. 72.5	39.1	31.3	19.3	2.8	6.4	9.55	:	16.7	43.4	54.8
spies marchanishment an	1952	Number of samples	2,810	470	683	362	36	156	169	35	30	92	4,827
the second second second second		Percentage of adulter	44.5	18.9	2.0	30.8	12.3	:	9.01	2.0	16.7	22.4	32.5
	1957	Number of adulte- rated samples	1,582	94	36	231	6		26	2	2	30	2,012
		Number of samples	3,554	497	725	751	73	100	245	86	12	134	6,190
		Nature of samples	Milk	Butter	Ghee	Gingelly Oil	Groundnut Oil	Cocoanut Oil	Coffee Powder	Tea	Ghee substitutes	Other articles	Total

. 30		Average fine per conviction in 1956	43 103 103 50 50 49 49	51
IT No.		Total fines imposed in 1956	33,009 3,230 6,075 4,775 3,030 1,920	52,469
SUPPLEMENT		Number of convictions in 1956	766 50 59 63 63 63 63	1,037
JPPL		Average fine per coviction in 1257	30 28 30 30 30 30 30	36
		Total fines imposed in 1957	32,430 4,190 1,710 8,255 8,255 905 	48,210
STATISTICS	rated ring	Number pending disposal on \$1-12-1957	1,934 137 115 115 36 30	2,356
S	adulterate ith during	Number acquitted, withdrawn or not prosecuted	88	105
	of twj	Number of articles seized and forfeited or destroyed without prosecution		
	P B	Number of convictions	1,012 88 28 165 165 	1,337
	Total nus samples	Number of samples	3,034 185 185 165 280 10 10 12 4 51	3,798
	of the ling 57	Number pending disposal on 7291—12—15	1,028 53 115 115 	1,251
	es lud	Number acquitted, withdrawn or not prosecuted	7 : : : : : : : : : : : : : : : : : : :	9
		Number of articles seized and forfeited or destryed without prosecution		:
	lulterated previous disposal	Number of convictions	422 38 36 1 1 10 7	529
	Adulterated previous y disposal	Number of samples	1,452 129 49 49 10 10 22	1,786
	among in 1957	Number pending disposal on 31-12-1957	906 333 102 7 116 17	1,105
	es ar ed in	Number acquitted, with drawn or not prosecuted	86	66
		Number of articles seized and forfeited or destroyed without prosecution	. : : : : : : : : : : : : : : : : : : :	:
	samples a	Nature of conviction	590 1129 129 129 120	808
70	Adulterated the samples a	Number of samples	1,582 1,582 36 231 26 2 30	2,012
LYSIS		44	 Oil. ii der tutes es	:
ANA		Nature of samples	y Oil Inut ut O Powc Powc rtick	tal
FOOD ANALY		Natra	Milk Butter Ghee Gingelly Oil Groundnut C Cocoanut Oil Coffee Powder Tea Ghee substitut Öther articles	Total

STATISTICS SUPPLEMENT No. 31

Showing the number of samples of water tested for bacteriological of chemical purpose in 1957

The Date of								- }	
Remarks									
Number of samples	30	1,074	.111	1,553	73	138	97	176	3,251
Description of samples	-	From the head works at Kilpauk water works From the infiltration gallery well at Sembiam	From the infiltration gallery well at Saidapet	From the Kortalayar distribution system From the Sembiam distribution system	From the Saidapet distribution system	From the shallow wells at Adayar, Kodambakkam, Guindy, Saidapet Triplicane and Marina	Private samples	From the water mains under sterlisation	Total
Serial No.	,	n 2	4	\$ 9	7	∞ .	6	10	

WATER ANALYSIS

Monthly average levels in the three Reservoirs and total (monthly) rainfall recorded in their catchments in 1957

1		100010	ted in their	Catchinents		ν.	· m
		Satyamoo (Poondi F	rthi Sagar Reservoir)		varam rvoir	Red I Reser	
Remarks		Average lake level In feet	Total rain- fal record- led in the region (inches)	Avorage	Total rain- fall record- ed in the region (inches)	Arraraga	Total rainfall recorded in the region (inches)
						` <i>-</i> -	.
January	•••	137.67	Nil	61.91	Nil	45•76	Nil
February	•••	136.51	Nil	61.89	, Nil	45:76	Nil
March	•••	135.08	Nil	60.56	Nil	45·22	Nil
April	•••	133.62	0.16	58·25	Nil	44.53	Nil
May	•••	133:28	2:50	57:41	Nil	43.08	0.15
June	•••	131.23	2.29	56.76	2:25	41.34	2.08
July	• • •	130.40	•49	57:33	4.01	40.12	3.80
August	•••	130:25	7.68	57.65	5.04	39.99	3 ·28
September	•••	129.92	2.60	56.06	4.74	40 ʻ0 9	4.05
October	•••	129.71	10.10	54.89	60.1	40.22	8· 6 8 `
November		135•74	9.18	58.90	15.11	45.28	13.58
December	•••	135.59	Nil	60.32	0.09	45:73	0.09
Total	•••	•••	38.00		37.25	• • • • • • • • • • • • • • • • • • •	35:71
				-	,	9	

STATISTICS SUPPLEMENT No. 33. Limnological conditions of the Sources of the City Water Supply: (Results expressed in parts per 1,00,000)
(a) Sathyamoorthi Sagar in 1957

	Sample not Collected.	•
0-11-57	1.30 1.30 1.36.90 S.G. 29.0 27.2 7.0 3.6 3.4 2.9 0.016 0.040 0.001 0.001 8.0 8.0 6.6 4.2	. 5c.c.
29–10–57 20	130.50 130.50 130.50 130.50 130.50 130.50 130.50 150 150 150 150 150 150 150 150 150 1	1 0c.c.
17-9-57	4.45 129.85 129.85 129.85 6.5 6.5 0.003 0.000 0.001 8.4 0.7.14	1.0c.c.
	Sample not Collected.	-
18-7-57	1.30 1.30 1.30.32 1.30.32 6.002 0.002 0.336 1.5 20.8 0.001 0.002 0.001 0.002 0.002 0.002 0.002 0.002	1.0c.c.
27-6-57	2.00 130.85 S.Y. 31.0 3.6 42.4 8.2 3.6 6.8 0.002 0.000 0.002 0.003	1.0c.c.
16-5-57	4.00 4.00 132.30 S.G. 30.0 2.8 5.2 5.8 5.2 5.8 0.0024 Nii Nii 0.285 1.0 1.0 0.001 1.0 0.04 6.98	1.0c.c.
29-4-57	1.30 1.30 1.33.12 Y.G. 32.0 8.0 6.0 6.0 8.0 0.004 Nii 0.03 8.4 0.03 8.4 0.03 6.65	. 5c.c.
17-3-57	S.W. 31.0 39.6 9.0 39.6 9.0 5.3 Nii 0.094 0.094 1.5 14.5 0.001 0.015 8.2 0.06 6.0	1.0c.c.
23-2-57	1.00 1.00 1.00 28.5 28.5 28.5 10.2 10.0 1.5 1.5 1.5 1.5 1.5 0.001 0.001 8.4 0.6 6.65	1.0c.c.
24-1-57	1.00 1.00 1.00 2.2 7.8 10.0 0.048 0.048 0.048 0.048 0.048 0.048 0.048 0.048 0.048 0.048 0.005 8.2 0.005 8.2 0.06 6.28	1.0c.c.
Description	A. Physical conditions: Time (P.M.) Depth in feet (above mean sea-level) Colour Temperature (°C) B. Chemical conditions: Total solids Total hardness Calcium hardness Chlorides Ammoniacal Nitrogen Albuminoid Nitrogen Nitrous Nitrogen Nitric Nitrogen Nitric Nitrogen Nitric Nitrogen Nitric Nitrogen Phosphates (PO ₊) Iron P.H. Silicates (SiO ₂) Dissolved oxygen (cc/L) C. Bacteriological conditions: B. Coli. & present in? c.c.	S.

Slightly Greenigsh; S W.-Slightly Whitish; Y.G.-Yellowish Green SY.-Slightly Yellowish; G-Greenish; Tr.-Trace.

W-Whitish; S.G.

WATER ANALYSIS

Limnological Conditions of the City Water Supply in 1957 (Results expressed in parts per 1,00,000) Sholavaram Reservoir.

STATISTICS SUPPLEMENT No. 34.

1	Sample not Collected.		
20-11-57	1.00a.m. 60.12 8.Y. 28.0 30.8 7.8 5.8 5.8 7.8 5.8 11.5 0.002 0.001 3.0 6.002	1.0 cc	
17-9-57 29-10-57 20-11-57	.00P.M. 1 55.64 W W 47.6 9.8 4.4 5.9 Niil Tr. 0.194 0.0001 Tr. 0.0001 7.68	1.0cc	
17-9-57	30P.M. 1 55.44 S.Y. 7 	1.0cc	
1	Sample not Collected.		
18-7-57	4.30P.M. 57.27 S.G. 31.0 2.8 5.2 7.3 0.002 0.064 Niil 0.224 0.022 0.001 0.024 0.001	1.0cc	
27-6-57	56.81 Y.G. 31.5 7.8 7.8 5.0 6.9 0.002 0.048 Niil 0.203 3.6 17.8 0.002 0.002 0.002 0.002 0.048	1.0cc	, es
16-5-57	11:30a.m. 11:30a.m. 157:42 S.G. 32:0 S.G. 33:0 S.4 6:5 0:0024 Niil Niil Niil 0:278 17:2 0:001 0:001 0:001 8:5 0:4 6:98	5 cc	-Minute tra
29-4-57	3:00P.M. 57.44 Y.G. 32:0 5:9 0:002 0:048 Niil 0:058 0:02 8:4 0:02 0:02 8:4 0:02 0:02 8:4 0:02 0:02 8:4	1.0 cc	M Tr-
17-3-57	S.Y. 32.4 8.8 3.0 5.7 0.003 0.001 0.001 0.001 8.4 0.001 8.4 0.001	5 cc	
23-2-57	2.45P.M. S.Y. 31.0 43.6 9.6 5.2 Nill 0.019 0.001 M.Tr. 8.4 0.6 7.2	2.0 cc	
24-1-57	4.00P.M. 62.24 W 28.5 W 28.5 9.0 9.0 6.4 6.2 Niil 0.157 0.157 M.Tr. 8.2 0.4 6.98	1.0cc	a
Description.	hysical conditions: 1e oth in feet (above mean level) 1evel) 1our Inperature (°C) 1 country 1 hardness 1 cium hardness 2 cium hardness 2 cium hardness 3 cium hardness 4 cium hardness 5 cium hardness 6 cium hardness 7 cium hardness 8 cium hardness 8 cium hardness 9 cium hardness 1 cium hardness 2 cium hardness 3 cium hardness 3 cium hardness 3 cium hardness	C. Bacteriological conditions: B. Coli. present in? cc and upwards	e e e e e e e e e e e e e e e e e e e

(c) Red Hills Reservoiur Limnological conditions of the sources of the City Water Supply in 1957 (Results expressed in parts per 100,000)

	1	Sample not Collected	
	20-11-57	11.30 45.86 S.G. 28:5 30.0 7.2 30.0 7.2 30.0 8.5 0.040 0.040 0.017 0.017 0.002 0.002 0.002 0.002 0.002 0.002 0.002 0.003	5 c.c.
	17-9-57 29-10-57 20-11-57	2.15 p.m. 40.93 W 7.8 3.4 4.4 6.6 Nil 0.056 Nil 1.2 16.0 0.001 Nil 8:5 0.6 7.33	5 c.c.
	17-9-57	11.30 40.35 W W W W 11.30 0.002 0.0040 0.0040 0.0040 0.0040 0.0011 16.3 0.0001 0.0001 0.0001 0.0001 0.0001	1 c.c.
	ĺ	Sample not Collected	
	18-7-57	5.15p.m. 40.00 4.4 4.4 4.6 7.3 7.3 7.3 Nil 0.064 Nil 0.192 1.5 1.5 1.5 1.5 1.5 1.6 0.001 0.001 8.4 0.001 8.4 0.006	5 c.c.
	27-6-57	10.30 40.75 Y.G. 31.5 7.3 0.002 0.056 Nil Nil 0.221 2.0 16.8 0.002 0.003	5 c.c.
·	16-5-57	10.30 10.30 43.12 W 31.0 39.2 9.0 3.6 5.4 6.7 0.0024 Niil Niil 0.275 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.	10 c.c.
-	29-4-57	5.00P.M. 43.85 Y.G. 31.0 31.2 8.6 6.1 6.1 6.6 0.003 0.004 Niil 0.259 0.9 15.6 Niil 0.005 88.3 0.005 88.3 0.005 0.005	5 c.c.
	17-3-57	5.15P.M. 4.30P.M. 5.30P.M. 5.00P.M. 40.8	1.0 c.c.
	23-2-57	S.W. 30°5 S.W. 30°5 S.W. 30°5 0.002 0.032 0.032 0.0229 13°8 Niil Niil M.Tr. 8°4 0.65	5 c.c.
	24-1-57	45.84 45.84 W. 28.0 2.4 5.6 6.0 0.005 0.001 0.174 1.2 1.2 0.001 M.Tr. 8:1 0.06 6:28	5 c.c.
	Description	A. Physical Conditions: Time (A.M.) Depth in feet (above mean sea-level) Colour Temperature (°C) Total solids Total hardness Calcium hardness Calcium hardness Chlorides Ammoniacal Nitrogen Nitrous Nitrogen Nitrous Nitrogen Oxygen absorbed (Tidy) to Methyl Orange Phosphates (Po ₄) Iron P.H. Silicates (Sio ₂) Silicates (Sio ₂)	C. Bacteriological Conditions: B. Coli present in? c.c. and upwards

WATER ANALYSIS

Some important Physical, Chemical and Bacteriological Results of Chlorinated Raw Water in 1957 (Results expressed in parts per 100,000)

9 35 48 800 29 55 62 72 73 B. Coli—60 cc% 27 0.5 0.5 0.4 0.4 0.5 0.5 0.4 0.4 0.4 0.4 9.0 SiOs 8.4 8.3 8.3 8.4 8.4 8.3 8.7 8.7 8.2 8.3 8.4 ₩. Ча M.Tr M.Tr 0.005 0.007 ΞÏ Ξ Tr E Z Tr Fe 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 bO^⁴ 16.0 16.5 16.0 12.0 13.8 13.7 15.5 16.5 M.0. 14.5 14.8 12.7 16.1 Alkalinity P.T.H. 9.0 9.0 0.5 0.3 0.7 8.0 6.0 8.0 0.7 1.4 1:1 1.1 0.176 Oxygen obsor-bed (Tidy.) 0.213 0.235 0.219 0.212 0.233 0.210 0.186 0.201 0.509 0.161 0.183 Z Z E E E Z Z Z E Z Nil Nitric Nitrogen < 0.001 0.001 Z E Z Z Z Ë E Ξ E Z Nitrous Nitrogen 0.058 0.043 0.054 0.050 0.058 0.050 090.0 0.048 0.046 Nitrogen 0.054 0.054 0.044 bionimudlA 0.003 0.002 0.005 0.003 0.003 0.002 0.002 900.0 0.003 0.002 0.007 0.007 Nitrogen Ammoniacal 2.8 9.9 8.9 6.1 6.1 7.1 7.3 7.0 5.4 4.9 Chlorides 8.4 9.5 0.6 **∞**.∞ 9.4 9.1 8.8 8.5 9.1 7.5 8.5 Total hardness 34.6 31.8 39.5 40.8 38.7 39.9 39.4 37.3 42.9 42.3 32.2 31.7 Total solids S.W > ⋛ Colour > No. of Samples 22 20 24 Months 1957 September November February December October January March August June May July

M.O.—Methyl Orange.

P.T.H.—Phenolphthalein.

Some important Physical, Chemical and Bacteriological Results of Chlorinated Filtrates from Beds in 1957. (Results expressed in parts per 1,00,000)

B. Coli—60 &	0	0	0	0	0	0	. 0	0	0	0	0	\$
^z O!S	0.4	0.5	0.5	0.4	9.0	0.4	0.5	0.4	0.5	0.5	0.5	0.5
ча	7.7	7.7	7.9	7.9	8.1	8.2	8.1	8.2	8.1	8.2	7.9	8.1
Fe	M.Tr	0.001	0.005	M.Tr	0.01	M.Tr		1	Tr	Z	Tr	Ti
Po4	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
nity to M.O.	13.4	13.8	14.1	14.7	15.4	16.2	16.8	16.6	16.1	16.0	11.9	12.3
Alkalinity P.T.H. M.	-0.3	9.0-	-0.4	-0.2	0.3	0.4	0.4	0.3	0.2	0.3	-0.2	0.5
Oxygen absorbed (Tidy)	0.132	0.161	0.162	0.158	0.201	0.205	0.178	0.171	0.198	0.187	0.157	0.167
Nitric Nitrogen	Nii	Nii	Nii	Nii	Zii	Nil	Nil	1	Tr	Nii	TL	Tr
Nitrous Nitrogen	0.001	0.001	0.001	0.001	Z	0.001	0.001	0.001	Tr	Nii	0.001	0.001
Albuminoid negoriiN	0.054	0.056	0.050	0.040	0.050	0.045	0.058	0.056	0.058	0.051	0.042	0.044
Ammoniacal Nitrogen	0.014	0.015	0.016	0.017	0.011	0.019	0.018	0.014	0.021	0.025	0.008	0.009
Chlorides	0.9	6.3	0.9	6.4	6.7	7.1	7.4	7.2	7.2	7.0	5.2	4.9
Total hardness	8.5	9.1	9.5	9.0	8.8	9.3	9.5	9.0	8.7	8.4	7.6	8.1
Colour	۵, ۲	C	O	o ·	,C	<u>ن</u> ،	Ç	C	C	Ö	O ₂	C
No. of samples	23	23	22	22	25	24	25	70	22	20	, 25	24
		:	:			200				:	200	· <:
Months 1957	January	February	March	April	May	June	July	August	September	October	November	December

WATER ANALYSIS

Some important Physical, Chemical and Bactiriological Results of the Test Tap Water at K.P.S. in 1957. (Results expressed in parts per 100,000)

3.Coli. -602.c.c.%	P.M.	•	70	0	42	92	87	36	16	26	45	48	64
B.Coli —602.c.	11-00 A.M.	55	. 65	55	81	96	29	32	45	20	-75	99	58
	Ois	0.4	0.4	0.4	0.4	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.5
	Н	9.2	7.7	7-7	7.8	4.6	0.8	0.8	0.8	0.8	0.8	9.2	7.7
		M.Tr.	Tr.	0.005	0.010	Z	0.005	1	ı	Tr.	Z	Tr.	Tr.
	НОЧ	0.001 M.T	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
ity to	M.O.	13.1	13.9	13.7	14.4	15.2	15.4	16.2	15.9	15.7	15.5	12.0	12.2
Alkalinity	T.H.	-0.4	9.0-	5.0-	-0.4	-0.5	0.1	-0.4	-0.5	0.1	-0.3	4.0-	-0.4
	Oxygenab (Tidy	0.117	0.158	0.154	0.182	0.201	0.197	0.174	0.167	0.140	0.169	0.145	0.138
uəgo.	nit oiniN	Nii	Niil	Nii	Nil	Nii	N.	Nii	1	Nii.	ïż	Nii	Nii
uəs	suortiN gortiN	<0.001	Nii	0.001	0.001	Nii	0.001	0.001	0.001	0.001	0.001	N.	Zii
	ionimudIA gortiN	0.048	0.048	0.048	0.040	0.050	0.056	0.020	0.052	0.052	00.48	0.040	0.042
	osinommA gorti <i>V</i>	0.004	0.004	0.003	0.012	0.005	0.005	0.013	0.015	0.017	0.010	0.004	0.005
	Chlorides	6.5	6.3	6.5	9.9	6.9	7.3	7.5	7.4	7.4	7.3	5.4	5.1
ssəu	Total hard	8.7	9.5	0.6	9.1	8.5	6.6	8.6	9.1	∞ ∞		7.3	9.5
S	bilos IstoT	29.9	35.5	38.9	36.0	35.3	37.3	38.8	37.3	42.0	42.5	29.0	28.9
	Juolo		C	Ö	Ö	Ö	رن	ر ت	Ŋ	Ö	ပ	Ö	, U
ples	Mo. of sam	40	43	42	43	49	47	47	39	41	9	48	46
	Months 1957		February	March	April	May	June	July	August	September	October -	November	December

STATISTICS SUPPLEMENT No. 39 Chlorination data for 1957—Furnished by the Water Works Department.

						1 E-1 7 1	bL'8I	·I	•••	.s.S	I iso	s [s]	оТ			
					C	[€−87]0−9	76,41 16,41	'I	•••		ine l			[sto]]]	L	
			nP.	50	75	75	00.	75	75	-00	. 25	50	75	25	75	-31
	To sos la sincipal de		Rs.	11,235	686'6	10,572	10,180	986'6	8,367	660'6	9,633	9,494	10,589	9,409	7,857	1,16,416–31
	of Chlorine er lb.		Rs. nP.	0.25	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	do.	-
•	li lbs. of rine used month.	Chlo	R	44,942	39,959	42,291	40,720	39,947	33,471	36,396	38,533	37,978	42,359	37,637	31,431	_
	f Chlorine per month st chlorina- F.W.	l pəsn		22,305	20,550	20,620	21,476	21,929	19,608	21,990	24,519	24,452	28,235	25,040	28,633	7
	Chlorine e-chlorina- 'R.W.	Lbs. o used proj to noii		20,637	19,409	21,671	19,244	18,018	13,863	14,406	14,014	13,526	14,124	12,597	2,798	÷
. -	prine tered P.M.	Mean		3.05	2.80	2.48	2.50	2.33	2.20	2.28	2.52	2.54	2.96	2.76	3.05	t. e hr en
	Dose of Chlorine applied to filtered water in P.P.M.	Min.	1	2.60	2.50	2:30	2.13	2.00	2.04	96.1	2.30	2.11	2.50	98.9	2.90	, "
	Dose applie wate	Max.		3.42	3.10	2.85	2.80	5.65	2.60	2.56	2.50	3.00	3.28	3.50	3.27	,
	Chlorine to raw P.P.M.	Mean		2.47	2.60	2.59	2.27	1.93	1.49	1.50	1.47	1.41	1.51	1.38	*	, , .
	Dose of Chlorine applied to raw water in P.P.M.	Min.		1.87	1.90	2.06	1.65	1.10	1.20	1.28	1.17	16.0	1.20	0.88	0.04	
	Dose app wate	Мах.		3.00	2.84	2.80	2.79	2.80	1.88	1.60	1.60	1.63	1.74	1.68	1.55	
	water fillion day.	Mean		26.00	26.08	26.82	28.14	29.82	30.07	31.14	31.35	30.47	30.59	30.35	30.34	,
	ntity of water red in million lons per day.	Min.		24.16	24.89	25.49	24.66	28.32	29.32	29.99	30.32	29.32	28.32	29.32	28.07	
	Quan'i filtere gallo	Max.		27.66	27.07	27-82	30.82	32.82	31.32	32.32	32.32	31.98	33-32	31.48	31.60	
	Months 1957	1 1		January	February	March	April	May	June	July	August	September	October	November 31.48	December 31.60	

* Raw water plant was stopped for want of Chlorine.

WATER ANALYSIS

WATER ANALYSIS

Kortalayar River system—City Distribution System—Results of Chemical and Bacteriological Examination in 1957.

(Results expressed in parts per 100,000)

	PH B. Coli—60.c.c.%	7.623	7.6 3	7.6 3	7.7 28	7.7 52	7.8 52	7.845	7.823	7.946	7.936	7.628	7.635
	Iron	0.002	Tr.	0.007	800.0	0.005	0.005	÷	:	0.005	Tr.	H	0.005
risions	Oxygen absorbed (Tidy)	0.118	0.145	0.147	0.198	0.205	0.188	0.173	0.158	0.173	0.176	0.146	0.127
ig Div	Nitric Nierogen	Ziz	N.	īz	Z	N.	ïZ	N.	•	Tr.	Z.	Tr.	iz_
Pressure Areas (Out Lying Divisions)	Nitrous magartiN	< 0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	Tr.	0.001
eas (O	Albuminoid negoriiN	0.005	0.063	0.040	0.038	0.034	090.0	0.042	:	0.020	0.045	0.041	0.042
re Ar	Ammoniacal Nitrogen	0.005	0.005	0.005	0.014	0.004	0.003	0.003	•	0.016	800.0	0.003	0.004
essu	Chlorides	6.1	6.3	6.3	2.9	6.9	7.2	7.4	7.3	7.5	1.2	5.7	5.5
Pre	Total hardness	8.7	9.4	9.1	9.1	6.8	9.3	9.4	9.3	8.9	8.4	9.1	8.1
Low	Total solides	30.4	31.9	40.5	36.2	33.9	37.9	39.9	37.0	42.8	43.7	32.3	29.3
	Smell	0 Nil	62 Nil	3Nil	0 Nii	32Nil	3Nil	4Nii	22 Nil	4 Nii	89 Nil	123 Nil	84 Nil
	No. of somples	110		113	120	(123	144		134			
	B. Coli—60.c.c.%	7.622	0 9.2	9 9.2	7.7	7.7 65	7.972	7.861	091.1	7-943	7.854	7-744	7.5 60
	Hd	7					•	7			-		7
(S	Iron	Tr.	0.005	200.0	0.01	0.218M.Tr.	0.204 M.Tr		1	0.002	Tr.	0.01	Tr.
High Pressure Areas (Near Head Works)	Oxygen absorbed (Tidy)	0.120	0.150	0.164	0.198	0.218	0.504	0.173	0.160	0.203	0.182	0.138	0.123
Head	Nitric Nitrogen	Z.	0.001 Nil	0.001 Nil	0.001 Nil	0.001 Nil	i.	0.001 Nil	1	1 Tr.	1 Tr.	ii.	Tr.
Near]	Nitrous Nitrogen	Z					·Tr.	0.00	1	0.001	0.001	Z	Nii
eas (1	Albuminoid negonity	0.056	0.026	0.033	0.019	0.020	0.053	:	0.030	00.36	0.050	0.023	0.049
ıre Ar	Ammoniacal negen	0.004	0.004	0.004	0.003	800.0	0.005	:	0.005	600.0	0.012	0.00	0.004
essu	Chlorides	6.1	6.5	6.3	9.99.8	6.4	7.1	7.3	7.3	7.7	7.3	5.2	5.3
Pr	Total hardness	8.3	9.4	8.7	9.8	∞. ∞.	6.8	8.6	9.1	6.8	8.3	7.3	0.8
High	Total solids	29.2	27.6	35.4	9.98	38.8	39.2	40.9	49.4	48.2	39.0	34.3	28.0
	Smell	9Nil	% N:i:	7	Z.	Z.	Z	Z.i.i	E.F.	Zi.	Z.i.	Zi.	Ē
	No. of samples	91	∞ 	16Nil	16Nil	17 Nil	11 Nil	21 Nil	10 Nil	141	22 Nil	181	10]
	Months 1957	January	February	March	April	May	June	July	August	September 14 Nil	October	November 18 Nil	December 10 Nil

WATER ANALYSIS

Kortalayar River System—Booster Area—Results of Chemical and Bacteriological Examination. (Results expressed in parts per 100,000)

B. Coli —60 c.c. %		0	0	0	0	20	75	25	17	25	44	37-	25
ча		9.2	9.2	7.7	1.7	7.7	7.8	7.8	7.8	7.8	7.8	9.2	9.2
lron		0.01	0.01	0.012	0.01	0.005	M.Tr.		ı	900.0	T.	Tr.	Tr.
Oxygen absorbed (Tidy)	Waltergroup age of grandening and	0.144	0.140	0.180	0.201	0.203	0.168	0.167	0.163	0.190	0.183	0.145	0.130
Nitric negonii M		Nii	•	\$	66	, 39	96	96	33	33	6	33	•
Nitrous Mitrogen		< 0.001	0.001	0.001	0.001	0.001	Tr.	0.001	N:i	0.001	Tr.	i.Z	II.
bionimudIA nagortiM		0.053	990.0	090.0	0.048	0.072	0.033	0.058	950.0	0.036	0.044	0.045	0.042
IsosinommA negoriiN		600.0	0.003	0.011	0.003	0.004	0.003	0.010	0.005	900.0	0,004	0.003	0.004
Chlorides		6.3	6.3	6.3	9.9	1.0	7.4	7.4	7.3	9.1	7.1	5.3	5:3
Total hardness		8.7	9.5	9.5	9.5	6.8	9.6	6.6	9.6	8.	9.8	0.2	1
sbilos latoT		31.2	33.2	38.0	29.2	36.7	44.0	42.3	44.4	45.0	38.8	28.8	38.4
Zwejj		Nii		8	8	8	\$		33		\$		*
No. of samples		∞	∞	4	7	10	4	24	9	70	18	∞	∞
hs 7	,	:	:	•	:	•		:	•		•	,	:
Month 1957	Destablishment and a second and	January	February	March	April	May	June	July	August	September	October	November	December

STATISTICS SUPPLEMENT No. 42

WATER ANALYSIS

at Sembiam and Saidapet in 1957 Examination of the Infiltration—Gallery Wells 1,00,000 per parts 111 expressed Results Bacteriological Results of Chemical and

09c.c. 9 9 c.c. 9 09 c.c. c.c. c.c. c.c. c.c. e.c. 09 09c.c. in 7 cc. & upds. B. Coli—present 9.0 9.0 90 80 9.0 9.0 0.8 0.8 9.0 9 Silicates 0 Tr. 7.0 7 0.01 7.0 0 005 7.2 0.03|M. Tr-69 2 3 0.017.2 0.017-2 $\mathbf{p}_{\mathbf{p}}$ 0.647 Tr. 7 Tr Z Iron 0.01 M. 0 02 M 80.0 0.02 0.02 0.012 0 04 0.03 Phosphates Alkalinity 5 -2.013.6 8 16.9 -1.9|18.30|18.5 5 -3.1114.8 -2.6 16.8 0.048 -0.7 18.9 Methyl Orange 13 621 Samples not collected Alkalinity 10-1 SAIDAPE Phenolphthalein 0.045 990.0 0 043 0.042 860.0 890.0 0.027 032 0.024 (YbiT) Oxygen absorbed Tr Witric N. Z Z \mathbf{p}_{Γ} Ţ Tr Pr Pr Pr Pr 0.001 0 001 0.001 0 001 V=.001 Z Z Z Z Z Ē Nitrous N. 0 002 0.005 8.00.0030.002 0.003 19.0 14.00 002 0.003 -60,62.8 25.0 14 0 0.004 0.002 7.00 0020 003 19.0 15.0 0030.002 00.000000 56.0 18.0 15.0 0.003 0 002 Nitrogen bionimudIA Nitrogen ΞZ := Z Z Ammoniacal 14.0 20.0 14.0 20.0 17.0 Chlorides ___ 19.0 17.0 17.0 40.8 -17.0 Total hardness 55.6 64.8 46.0 0.99 -60 63 6 50.8 59.4 Total solids 09-09-09 09 09-09-09 09 c.c. c.c. in 7 cc. & upds. B. Coll—present 13.7 0.005 0.17 7.0 0.6 0.03 0.06 7.0 0.6 0.020.066.90.6 0.02 0.20 6.8 0.6 0.01 0.20 7.0 0.6 0.020.106.90.6 8.20.0080.057.00.6 10.3 0.006 0.06 7.1 0.6 0.010.207.00.8 Silicates 10.70.0060.046.90. पत non **Phosphate** 12.7 9.6 13.5 12.6 11.6 12.3 Alkalinity Methyl Orange -2.5 -2.5 2.5 -3.3 -2.5 -2.5 -0.2Alkalinity -3 Phenolphthalein ples not collected 0.069 0.123 0.025 0.079 0.016 0.068 0.072 0.048 Samples not collected SEMBIAM (VbiT) Oxygen absorbed <u>_</u> Z Ē Z Ž.≒ Tr Z Ē Nitric N. <u>.</u> 0.001 0.001 Z Ē Z 三 \bar{z} .N suotiiN 0.002 Nitrogen 68.4 21.0 20.0 0.010 0.002 0.00 bionimudiA 56.4 | 18.0 | 14.0 | 0.002 0.00 0.004 0.007 0.004 0.004 0.011 Nitrogen Ē Z Ammoniacal 74.4 24.0 27.0 61.2 | 16.0 | 13.0 | 80.4 22.0 23.0 46.2 14.2 14.2 February 63.2 16.0 14.0 60.2 19.0 21.0 Chlorides Total hardness Total solids Months 1957 October January March April May June Nov. Dec. July Sep.

43 ôZ SUPPLEMENT lery Systems-Distribution System-Results of Chemical and Bacteriological Examination WATER ANALYSIS
Infiltration Gall

100 100 100 8 100 99 34 B. Coli—60 cc% 83 85 7.6 7.6 7.6 7.8 पत 0.005 0.015 0,010 Iton 0.01 13 0.050 bed (Tidy.) 0.096 0.045 0.085 0.054 0.083 0.032 0.044 0.083 0.087 Oxygen obsor-Z E Pr. Pr. Nitric Nitrogen Saidapet Z Z Z Z Z Z Z Nitrous Nitrogen 0.002 654.0 18.0 14.3 0.002 0.003 0.002 0.001 Nitrogen bionimudIA 658.0 20.0 14.5 0.004 0.002 0.002 668.4 20.0 17.0 0.002 Nitrogen Z Z Ammoniacal 8.0 10.5 16.5 13.8 in parts per 100,000) Chlorides 18.0 22.0 16.0 1100 12 44.2 118.4 Total hardness 657.6 658.0 632.2 Total solids No. of Samples 0.03 7.0 100 100 88 100 83 100 B. Coli—60 cc% 0.03 7.6 6.8 7.4 7.6 पत (Results expressed 0.05 0.02 0.00 0.05 0.04 0.01 0.035 0.02 Iron (VbiT) 0.047 0.050 0.081 Oxygenabsorbed EZ Z EZ E Nitric Nitrogen E E Z Nitrous Nitrogen 0.003 0.002 0.033 0.003 0.003 0.002 0.002 Sembiam 0.002 0.002 not Nitrogen bionimudIA September 886.8 25.2 27.0 0.003 848.0 17.5 14.0 0.002 843.6 16.0 12.2 0.001 Nitrogen 880.0 21.2 20.5 0.00 12,56.8 | 17.5 | 16.3 | 0.00 657.2 18.0 18.0 0.00 Ammoniacal Chlorides Total hardness Total solids No. of samples December February January March

WATER ANALYSIS

Results of Chemical and Bacteriological Examination of the Shallow wells used as Sources of water supply to out-lying areas in 1957.

(Results Expressed in Parts per 10,000)

STATISTICS SUPPLEMENT No. 44

RICHARD'S PARK WELL (SAIDAPET)

UNITED INDIA COLONY WELL (KODAMBAKKAM).

	- Cec	Ö	198.0	48 0	70.0	0.200	0.007	0.005	Tr.	0.075	-4.5	37.5	ر.01	0.04	7.2	8.0	1 c.c.
-;	Nov.	ر چ	174.4	50.0	154.0	960.0	0.004	0.005	T	0.102	3.8	35.2	0.01	0.04	7.2	9:0-	-1 c c.
	Oct.	္လုပ	246.0	.48.0	. 74.0	0.128	0.002	0.001	i Li	0.102	-4.7	35.0	0.04	0.06	7.0	9:0	O.O.
	Sept.	ļ 0	19F.2	48.0	65.0	0.08	0.005	0.005	120	* - Y	- 5.1	30.4	0.01	0.03	7.2	9.0	1 c.c.
1	Aug.	-	-			•		pəŋ	ollec	o ton s	niple	es :				• • •	\$1 87 85 64 4 7 2
,	July	ď	243.2	61.0	87.0	0.36	10.005	0.005	Pr.	0.104	-6.5	40.2	0.01	0.4	7.1	0.6	I c.c.
	June	S.Y.	245.2	58.0	80.0	0.080	0.004	0.005	Nii.	0.108	-5.0	37.5	0.003	0.15	7.2	9.0	1 c.c.
,	May	υ	212.0	56.0	81.0	0.010	0.004	0.001	Tr.	0.098	5.0	23.1	0.008	0.2	1.7	9.0	5 c.c.
	Apr,	Ü	0.886	72.0	104.0	0.080	0.004	0.001	Pr.	0.155	0.6 -	42.9	0.008	0.5	6.6	9.0	0.0 C.C.
	Mar.	S.Y.	262.0	70:0	112.0	0.144	0.048	0.005	Pr.	0.166	-7.0	45.0	0.016	0.4	7.0	0.8	. c.c.
	Feb.	Ü	258.8	62.0	106.0	0.144	0.008	0.001	Ţ.	0.160	6.5	42.5	0.010	0.5	7.2	0.8	
-	Jan.	S.Y.	239.6	65.0	103.	0.176	0.005	0.001	Pr.	0.256	5.8	40.5	0.01	0.4	7.2	9.0	1 c.c.
	Dec	ບ	255.2	65.0	63.0	Nii.	Nii.	0.001	Int.	0.081	-3.5	42.5	0.03	0.005	7.3	9.0	-6.0 60 c.c.
-	Nov.	· ນ	230.8	0.09	59.0	Nii.	0.064	Zii.	Int.	0.057	-3.5	43 2	0.05	Tr.	7.2	9.0	0.09
-	Oct.	υ	210.4	470	64.0	0.005	0.003	0.005	Int.	0.074	-1.2	37.5	0 03	Nii.	8.0	0.8	602.0 c.c.
	Sept.	2	218.0	53.0	64.0	. Tiz	0.005	ii	d ands writing?	,::1	-1.2	40.1	0.05	0.01	8.0	9.0	C.e.
-	Aug.	the proof				TO MENT OF THE	en egysterig	bəi	oojjo	o ou sa	lqmi	PS	1 th	٠,		4 .	
	July	. O	230.0	55.0	0.99	0.004	0.005	0.001	Int.	0.105	0.4	39.2	0.01	M. Tr.	8.0	9.0	8 3
	June	<u>۔</u> ت	198.4	45.0	0.09	0.022	900.0	0.001	Int.	0.081	-1.9	36.2	0.04	M. Tr. M.	8.0	9.0	c.c. 10 c.c.
	May J	- U	193.6	94.0	55.0	0.010	0.005	0.001	Tr.	0.113	-2.0	37.2	0.008	0.015 M.	7.9	9.0	1 c.c.
	Apr. 1	· U	176.0	44.0	55.0	0.006	0.005	0.005	Zii.	0.128	-0.2	37.5	0 01	M. Tr.	7.9	0.8	1 c.c.
- 1	Mar.	S.Y.	198.0	50.8	54.0	0.016	0.004	0.005	Int.	0.058	-1.0	36.7	0.016	0.005 M	6.7	0.8	10 c.c.
1	Feb	- U	176.2	51.0	51.0	0.002	Tr.	0.005	Pr.	0.109	-2.5	57.4	0 01	M. Tr.	8.0	9.0	1 c.c. 5 c.c. 10 c.c.
		<u></u>	189.2	55.0	58.0	0.004	0.003	0.005	Pr.	0.080	-33	36 A	0.01	M. Tr. M. Tr.	7.2	0.8	1 c.c.
	957:	S species and the second secon	£ .	ess	7. 1	See of the	, ,		physiq becq my		linity.	inity	:	1	•	† :	sent in
	Months 1957 Jan.	Colour	Total Solids	Total Hardness	Chlorides : ;	Amm. N.	ż	Nitrous: N.	Dy	Oxygen Absorbed (Tidy)	P.T.H. Alkalinity.	M.O. Alkalinity	Phosphates		D. A second	afes	B. Coli—present in ?c.c. & upwads
1	X		Total	Total	Chlos	Amm	Alb. N.	Nitro	Nitric. N.	Oxyg	P.T.F	M.0,	Phos	Iron	pH.	Silicates	B. C. 7c.c

Results of Chemical and Bacteriological Examination of the shallow wells used as Sources of water supply to out-lying areas in 1957. (Results Expressed in Partf per 100,000).

URUR WELL (EAST ADAYAR)

URUR WELL (WEST ADAYAR)

							23											
*	Dec.	Ď,	75.6	21.0	7.0	0.004	0.003	0.001	Pr.	0.043	-0.5	17.8	0.03	Tr.	7.6	9,0	09-	
-	Nov.	C	58.4	17.0	4.0	0.002	0.002	0.001	Pr.	0.049	-0.5	16.2	0.04	īZ	7.7	9.0	10c.c.	
	Oct.	, _C	51.6	16.4	7.2	0 002	900.0	Ţ.	II.Z	0.040	8 0-	18.1	0.02	ijŽ	7.8	. 0.8	1 c.c.	
	Sept.	C	62.4	17.0	7.0	0.004	0.003	Tr.		1	-1.0	18.7	0.05	Tr.	7.6	0.8	5 c.c. 60 c.c.	
	Aug.	C	39.6	21.0	. 5.0	0.003	0.003	0.005	Pr.	0.066	- 0.8	17.5	0.03	M. Tr.	7.6	8:0		
	July	C	44.4	17.0	5.0	0.003	0.008	0.001	Pr.	0.063	-0.7	17.1	0.01	Tr.	7.6	9.0	09-	
100	June.	Ü	38.8	20.0	0.9	0.002	0.002	Nii	Z	990.0	9.0-	17.5	0.04	0.005	7.6	9.0	5 c.c.	
	May	C.	52.0	16.4	0.9	0.004	0.003	Z	ïZ	0.109	-0.5	16.5	0.04	0.005	7.6	9:0	2000	
	April	2	57.2	22.0	11.0	0.002	0.002	Z	īZ	0.051	0.5	19.8	0.5	II.	8.0	9.0	09-	ı
,	Mar.	C	49.8	20.0	9.0	0.002	0.018	0.001	Z	0.033	1.4	21.9	0.02	0.015	8.3	9.0	99	
	Feb	၁	51.2	21.0	8.0	I.N	0.002	Z	Pr.	0.096	-0.5	19.0	0.016	M. Tr.	T.7	0.6	09	
,	Jan.	C	45.8	17.6	7.0	0.003	0.002	0.001	Tr.	0.056	-0.2	16.7	0.02	M. Tr. M.	8.0	0.8	5 c.c.	
	Dec.	. 2	> 50.8	7.4	2.4	0.003	0.003	0.001	Tr.		-0.5	10.7	0.03	0.02 M.	7.6	9:0	5 c.c.	
	Nov.	W	32.7	10.0	2.0	Nii	0.002	II'N	Ţŗ.	0.072	-05	10.7	0.03	0.01	7.6	9.0	1 c.c.	
	Oct.	<u>ن</u> ر	38.0	8.6	2.1	0.00	0 004	īZ	IIZ	0.032	0 2	11.1	0.02	0.015	8.0	0.8	. 80	
	Sept.	သ	. 28.8	10.0	4.0	0.005	0.002	īZ	1	1	9.0—	11.6	0,02	0.03	9.2	9.0	1 c.c.	
	Aug.	<u>ပ</u>	24.4	10.0	2.0	Ϊ́̈́̈́	0.003	0.001	Ţŗ	090.0	9.0—	10,8	0.03	0 015	7.7	80	1 c.c.	
	July	O,	30.4	9.0	3.0	0.003	0.010	0.005	Tr.	0.075	-0.5	11.1	0.01	0.01	9.7	9.0	1 c.c.	
	June	Ö	26.0	10.0	1.8	0.002	0.002	ïZ	Ī	0.048	0.5	10.5	0.04	0.01	7.6	0.6	1 c.c.	
	May	8	27.2	6.4	8.0	900.0	0.006	riz.	ïŽ	0.238	-0.8	11.0	0.03	0.03	7.7	0.0		
	April	ပ	32.0	0 6	7.0	0.004	0.005	īž	ij	0.132	-0.5	11.5	0.03	0.01	7.6	0.0		
	Mar.	ن ر	40.4	11.0	5.0	0.002	0.005	0.001	Ë	0.040	9.0—	11.4	0.01	Tr.	7.8	9.0	60 c.c.	
	Feb.	Ö	38 4	10.0	0.9	ïZ	0.004	Ē	Tr.	0.064	-0.7	13.8	0.02	0.03	7.7	0.4		
	Jan.	ပ	37.4	11.8	3.6	0.002	0.002	0.001	Tr.	0.037	-0.3	14.2	0.05	M. Tr.	8.2	9.0		
	1957	our	: :	lness	•	al N	N PI	:	:	absorbed 	kalinity.	linity	:	. :	:	And has	esent in	
	Months 1957	Colour	Total Solids	Total Hardness	Chlorides	Ammoniacal N	Albuminioid N	Nitrous N	Nitric N.	Oxgen al (Tidy)	P.T.H. (Alkalinity.	M.O. Alkalinity	Phosphates	п	•	Silicates	B. Coli—present in	
		Post	Tot	Tol	ਹ	An	AII	Z	Ž	ô	P.1	M.	Ph	Iron	pH.	Sill	B.	

WATER ANALYSIS

Results of Chemical and Bacteriological Examinationof the shallow wells used as Sources of water supply to outlying areas in 1957 (Results expressed in parts per 100,000.)

WELL OPP: ADAMS ROAD, MARINA

WELL OPP; WENLOCK MARINA

Dec.	Ö	8.44.	16.0	7.0	0.005	0.003	Tr	Pr	· ip	0.088	-0.5	14.0	0.05	īZ	8.0	9.0	0.c.
Nov.	ט`.	59.6	16.0	7.0	0.002	0.002	ĒŽ	Pr	Ŧ,	0.049	-0.5	13.6	0.03	Tr	8.0	9.0	-60 c.c.
Oct	Ŋ	34.4	17.0	13.0	Ī	0.002	Z	Pr	* [] J.	0.037	1.0	12.5	0.02	0.005	8.2	0.4	- 60 c.
Sep	C	35.2	15.0	8.0	Ē	0,002	0.005	-	-		0.7	13.1	0.01	N.	8.0	8.0	- 60. c.c.
Aug	C	36.4	15.0	0.9	0.002	0.003	ij	Pr		0.070	-0.5	11.9	0.02	M.Tr	7.8	9.0	
July	ر ت	35,6	16.0	5.0	iż	0.002	0 001	Pr		0.056	-0.5	-11.8	0.02	iiż	8.0	0.4	60.
June	D)	36.0	16.0	7.0	0.002	0.002	0.005	Z		0.045	-0.2	- 12.0	0.01	ïZ	8.0	9.0	00.00
May.	0	.46.4	14.0	7.0	0.004	0.002	īZ	Nil		890.0	•0.6	1	0 02	0.01	8.4	900	- 60. c.c.
Apr.	0	41:6	150	11 0	0.002	0 002	i i	Z	• ***	0.041	0.3	12.5	0.03	0.005	8.1	9.0	- 60. C.C.
Mar.	0	55.2	17.0	14.0	Ī	0.002	Ē	· iz	· .	0.020	1.1.	13.3	0.008	0.01	7.9	0.4	- 60. c.c.
Feb.	S.Y	59.0	15.0	7.0	i.Z	0.002	0.005	Pr	-	690 0	-02	13.1	0.008	0.005	8.0	0.4	- 60 C.C.
Jan.	S.Y	62.0	18.0	9.0	Z	0.004	0.001	Pr		0.035	-0.5	14.3	0.004	0.005	8.0	9.0	-60. c.c.
Dec	Ü	102.4	29.0	31.0	0.000	0.003	ij	Pr	1	0.081	-0.5	17.5	0.01	N.	7.8	9.0	- 60. c.c.
Nov	C	91.6	23.0	28 0	0.004	0.004	0.005	Pr	1/2.	0.102	- 0.5	15.8	0.02	Tr	7.8	9.0	5. c.c.
Oct	. °C	137.2	34.0	58.0	0.002	0.002	ïZ	, L	-	0.040	0.5	15.5	0.004	0.005	8.2	0.6	60.c.c.
Sep.	U	164.0	32 0	55.0	0 003	0.002	0 001	-, 1		1	6.0	15.8	0.01	ïZ	7.8	9.0	.00 .00 .00 .00
Aug	v	181.6	42.0	0.69	0.002	0.002	0 001	Ţ		0.048	8.0-	15.6	0.01	M. Tr	8.0	9.0	.c.c.
July.	Ü	156.4	37.0	0 69	0 005	0.004	Z	Ţ	-	0.148	- 0.5	14.4	0.01	0 005	8.0	0.4	0. c.c.
June.	C	154.4	31.0	58.0	0.002	0 002	0.005	Pr.		0.063	-02	16.5	0 0 0 1	Tr	7.8	9.0	10 c.c. 20. c.c.
May.	O	154.4	33.0	58.0	0.006	ïZ	0.005	. [860:0	9.0-	14.2	0 01	0.01	7.8	9:0	-60. 1
Apr.	U	145.2	32,0	55.0	0 002	0 005	0.003	Int	1	0.101	- 0.7	14.8	0.03	M.Tr	7.8	.(0.4	.c.c.
Mar.	Ö	122.0	30.0	51.0	0 004	0 004	0.001	Z	1	0.027	1.0	15.5	0.01	0.005	7.8	0.4	20.cc.
Feb.	C	112,0	28.0	41.0	140	2	Ž		: 3	0.107	4.0 –	16.0	0.006		7.9	0.4	- 60. c.c.
Jan.	, C	88.2	25.0	37.0	0.004			į	•	0.114	0.5	15 7	0 01	0.00	7.9	9.0	-60. c.c.
		:	SS	:	Z	· Z	41	:	:	orbed		:	:	:		-:	
MOnths. 1957	Colour	Total solids	Total hardness	rides	Ammoniacal N	Albuminoib N.	Witrons N	2		Oxygea absorbed (Tidy)	P.T.H. Alkalinity.	M.O. Alkalinity	Phosphates			Silicates 3.	B. Coli—present in-
MC		Total	Total	Chlorides	Amm	Albu	Nitro	Z cirtis	THINK!	Oxyg (Ti	P.T.E	M.0.	Phos	Iron	pH.	Silica	B. Co

WATER ANALYSIS Rest

the Shallow	
u	
S	

1 3	Dec.						Sa	mple	es no	ot take	ń					ì	
	Nov.	0	78.8	25.0	23.0	0.004			Pr.	0.123	-0.5	19.1	0.03	Tr.	7.7	9.0	5 c.c.
INA.	Oct.	Ö	126.8	33.0	38.0	0.008	0.002	0.005	Z	0.088	-0.5	22.3	0.02	0.005	. 8.0	0.4	10 c.c.
, MARINA	Sept.	C	113.6	34.0	37.0	0.005	0 004	0.005			-14	23.8	0 02	Tr.	7.7	90	60 c.c.
ROAD,	Aug.			4.4			San	nples	not	collect	ed				,		62
LLOYDS	July	v	107.6	31.0	40.0	0.010	0.004	0.005	Pr.	0.131	4.0—	23.5	0.02	0.005	7.8	0.4	.c. 09
TO LL	June	C	117.2	33.0	36.0	0.002	0.004	0.005	Nii.	0.120	- 0.5	22.2	0.2	0.005	8.0	0.4	60 c.c. 60 c.c
OPPOSITE	May	0	9.66	30.0	32.0	0.006	0.004	0.005	Tr.	0.165	-0.4	23.5	0.02	0.01	7.8	9.0	60 c.c.
	Apr.	<u>ت</u>	0.96	33.0	35.0	900 0	0.002	0.005	īž	0 147	-0.8	24.3	0.04	Ϊ́Ζ	7.7	0.4	c.c. 10 c.c.
WELL	Mar.	C	104.8	320	34.0	0 003	0.004	Z	ïZ	0.067	-1.7	25.1	0 02	0.005	7.9	90	9
	Feb.	C	77.2	39.0	27.0	0.004	Nii	0.005	Pr.	0.049	-0.7	23.1	۲.02	M. Tr.	7.8	0.4	
	Jan.	C	92.2	32.0	31.0	0.006	0.005	0.005	Pr.	0.168	-1.0	25.2	0 02	0.02 M.	7.8	9.0	5 c c
	Dec	ပ	56.4	21.0	10.0	0.048	0.003	0.001	Pr.	0.103	-0.5	13.8	0.02	Tr.	8.0	9.0	90 с.с.
	Nov.	ر ک	52.4	21.0	8.0	0.010	0.002	0.005	Pr.	0.048	- 0.4	14.4	0.03	Tr	8.0	0.6	1 c.c.
INA	Oct.	ပ	49.6	22.0	7.0	090.0	0.002	0.005	Pr.	0.024	-0.5	11.8	0.01	0.01	8.0	9.0	1. c.c.
ST., MARINA	Sept.	C	48.8	19.0	11.0	0.002	0.003	0.001	ľ	. 1	-0.6	13.6	0.01	0.005	7.8	0.6	1 c.c.
	Aug.	Ċ	52.8	20.0	11.0	0 00	0.003	NI	Pr.	0.002	-0.5	12.7	0.02	0.005	7.8	0.4	60 с.с.
SUNKUVAR	July	C	36.0	17.0	4.0	ïŻ	0.004	0.005	Pr.	0.056	-0.5	12.7	0.05	0.01	7.8	0.4	1 c.c.
TO SU	June	၁	56.8	18.0	12.0	0.002	0.004	0.005	Nil	0.051	-0.2	13.6	0.01	0.01	8.0	9.0	- 60 60 c.c.
	May	ပ	56.4	23.0	12.0	900.0	0.002	ïZ	īz	0.098	0.3	14.8	0.01	0.005	8.0	9.0	
WELL OPPOSITE	Apr.	· v	45.2	18.0	13.0	0 002	0 005	0.005	ïŻ	0.113	-0.5	14.3	0.02	0.005 M. Tr.	7.7	9.0	10 c.c.
WEL	Mar.	S.Y.	38.4	15.0	8.0	ïZ	0.003	Z	Pr.	0.035	6.0—	12.4	0.008		8.0	9.0	
* 3	Feb.	S.Y.	46.8	18.0	12.0	īž	0.002	0.002	Pr.	0.062	-0.2	13.5	0.010	M. Tr.	7.8	9.0	60 c.c.
	Jan.	S.Y.	56.8	18.0	09	0.004	0.005	0.005	Pr.	0.034	-0.4	. 12.7	0 0 0 10	Z	8.0	0.8	09 – c.c
	Months 1957	Colour	Total Solids	Total Hardness	Chlorides	Amm. N.	Alb. N	Nitrous: N	Nitric. N	Oxygen Absorbed (Tidy)	P.T.H. Alkalinity.	M.O. Alkalinity	Phosphates	Iron	рН	Silicates	B. Coli—present in ?c.c. & upwads

WATER ANALYSIS

STATIŞTICS SUPPLEMENT No. 48

Months 1957			Dec.	C	156.0	37.0	24.0	0.002	0.002	0.001	Int.	0.078	-3.0	29.8	0.04	Tr.	7.2	0.8	1 c.c.
Month 1957 Fan. Feb. Mar. Feb. M		SION)	Nov.	C	1280	45.0	29.0	0.003	0.004	0.005	Int.	0.75	-1.5	29 5	0.02	Ĭŗ.	9 2	9.0	1 c.c.
Results of Chemical and Bacteriological examination of the shallow wells used as sources of water supply to out-lying areas in Results expressed in Parts per 100,000. Months 1957	1957.	DIVIS	Oct	C	80.4	26.0	12.0	0 002	0.002	0.005	N.	0.024	-1.5	27.9	90.0	0.01	7.8	0.8	1 c.c.
Months 1957			Sept.	ر ا	9.68	27.0	15.0	0.002	0.003	0.005	1	1	-3.3	28.4	0.05	Tr.	7.2	9.0	1 c.c.
Months 1957	ıg are	TREE		ر 2	83.2	34.0	16.0	0.005	0 003	- IIX	Pr.	1	- 2.0	30.2	0.05	0.03	7.6	8.0	1 c.c.
Months 1957	ıt-lyir	KOIL S	July	O	9.61	26.0	11.0	īZ	0.003	0.005	Int.	0.093	-2.5		0.03	0.01	7.1	9.0	1 c c.
Months 1957	, to o		June	C	8.08	30.0	15.0	0.002	0.002	Nii	Pr.	0.018	- 1.5	1	0.04	0 005	7.6	0.8	
Months 1957	upply	PILLA	May	<u>ن</u>	127.6	28.0	17.0	0.004	0.016	0 005	Tr.	0.120	-2.7	29.2	0.08	0.02	7.2	9.0	1 c c
Months 1957	ater ś	HELLA	April	C	81.6	28.0	17.0	0.003	0.004	0.005	ïZ	0.120	-1.4	30.4	0.08	0.015	7.3	0.6	1 c.c.
Months 1957 Am. April May June July Aug Sept. Oct. Nov. Dcc. Jan. April May June July Aug Sept. Oct. Nov. Dcc. Jan. April May June July Aug Sept. Oct. Nov. Dcc. Jan. Ammoniacal N S50 S	s of w	AT		v	84.8	28.0	17.0	0.004	0.004	0.005	Tr.	0.033	- 3.4	28.1	0.05	0.01	7.2	0.8	1 c.c.
Months 1957 Am. April May June July Aug Sept. Oct. Nov. Dcc. Jan. April May June July Aug Sept. Oct. Nov. Dcc. Jan. April May June July Aug Sept. Oct. Nov. Dcc. Jan. Ammoniacal N S50 S	ource 000).	WELL		S.Y	80.4	27.0	16.0	īz	0.004	0.005	Int.	0.059	-2.5	29.2	0.05	0 005	7.4	0.6	1 c.c.
Months 1957	as s 100,			S.Y	105.2	30.0	19.0	0.002	0.003	0.005	īZ.	0.150	4.5	30.5	0.05	0.005	7.6	9.0	1 c.c.
Months 1957	ls use rts pe		Dec.	O	195.6	55.0	27.0	Z	īZ	0.001	Pr.	0.043	-0.5	25.5	0.05	Tr.	7.3	0.6	09— C.C.
Months 1957	w wel in Pa	8		C	136.8	55.0	23.0	0.002	0.048	0.001	Pr.	0 042	-20	24.1	0.01	Tr.	7.4	8 0	5 c c.
Months 1957	shallo	-	Oct.	D C	153.2	54.0	28.0	Z.	0 002	īZ	Pr.	0 0 0 0 0 .	-2.0	26.4	0.01	Nii	7.6	8 0	-60 c.c.
Months 1957	f the s		-	۲	134.0	54.0	22.0	ïZ	0.002	0.001	1	1	-2.5	23.0	0.008	0.03	7.5	9.0	1 c.c.
Months 1957	tion o Result	(DY)					F	ecte	lloo i	ou ə	lqas	S			**********				,
Months 1957	umina (J			O	158.4	56.0	27.0	ii.Z	0.003	0.001	Pr.	0.075	-2.0	24.3	0.01		7.5	80	5 c.c.
Months 1957	al exa	LONY		C	128.6	53.0	24.0	ij	0.003	0.001	Pr.	0.062	-1.5	23.1	0.01	Tr.	7.5	9.0	5 c.c.
Months 1957	ologic			D D	146.8	550	24.0	0.003	0.002	0.005	Tr.	0.083	-2.5	24.2	0.001	0.01	7.5	0.0	1.c c.
Months 1957	acteri	[APAT]		C	136.4	56.0	28.0	N.	0.002	0 001	Ϊ́̈́̈́̈́̈́̈́	0.095	-2.1	24.9	- III	0.01	7.4	0.8	1 c.c.
Nonths 1957	and B	r GAN		S.Y	149.6	0.09	33.0	0.005	0.002	0.001	Int.	0.058	-2.6	24 9	0.01	M. Tr.	7.6	9.0	60 c.c.
Moning Moning Total S. Silicate B. Coling S. Silicate B. Coling S. S. Silicate B. Coling S. S. S. Silicate S. S. S. S. Silicate S. S. S. Silicate S. Silicate S. Silicate S. Silicate S. Silicat				C	138.6	20.0	30.0	0.002	0.002	0.001	Int.	0.030	-31	25.5	0 001		73	9.0	
Moning Moning Total S. Silicate B. Coling S. Silicate B. Coling S. S. Silicate B. Coling S. S. S. Silicate S. S. S. S. Silicate S. S. S. Silicate S. Silicate S. Silicate S. Silicate S. Silicat	f Cher	₩		O	151.6	55.0	33.0	0 004	0.003	0.005	Pr.	0.120	-2.7	23.6	0.002	0.3	7.7	0 8	5 c.c.
Moning Moning Total S. Silicate B. Coling S. Silicate B. Coling S. S. Silicate B. Coling S. S. S. Silicate S. S. S. S. Silicate S. S. S. Silicate S. Silicate S. Silicate S. Silicate S. Silicat	lesults of		-	Colour	spile	ardness	SS	iacal N	N bion	z	:	absorbed	Alkalinity.	Ikalinity	ites	^	•	•	Present in & upds
	· · · · · · · · · · · · · · · · · · ·		Month		Total Sc	Total H	Chloride	Ammon	Albumir	Nitrous	Nitric N	Oxygen (Tidy)	P.T.H.	M.O. A	Phospha	Iron	pH.	Silicates	B. Coli-

Results of Chemical and Bacteriological Examination of the shallow wells used as sources of water supply to outlying areas in 1957 (Results expressed in parts per 100,000.)

Dec. Jan. Feb. Mar. Apr. May. June July Aug. Scp. Oct. N C C S.Y C C C C C C C 106.2 40.4 53.2 34.8 43.6 52.0 48 0 53.6 50.0 54.4 6 25.0 12.0 10.0 11.0 9.0 10.0 9.0 8.0 7.0 7.3 0.004 0.002 0.025 0.002 0.004 0.004 0.004 Nil 0.002 Nil 0.002 Nil 0.000 Nil Nil 0.002 Nil Nil 0.000 Nil			er.											1										1
Nat. Feb. Mát. Apr. Apr. Apr. Ang. Sep. Oct. Nvo. Dec. Jan. Feb. Mat. Apr. May. June July Aug. Sep. Oct. Nvo. Dec. Jan. Feb. Mat. Apr. May. June July Aug. Sep. Oct. Nvo. Dec. Jan. Feb. Mat. Apr. May. June July Aug. Sep. Oct. Nvo. Dec. Jan. Feb. Mat. Apr. May. June July Aug. Sep. Oct. Nvo. Oct.			*	ELL A		APPIEI		ET, (40	h Divis	ion)		ii.				WE	LL AT	KOLL		OYAR				
8.3. S.Y. S.Y. C. S.Y. C.	Jan.		1		May.		July.	Aug		1		1			<u> </u>									Dec.
98.8 93.2 94.4 85.2 94.4 95.2 94.8 106.2 49.6 53.2 34.8 43.6 52.0 48.0 53.6 50.0 48.0 53.6 50.0 48.0 53.6 50.0 48.0 53.6 25.0 10.0 10.0 10.0 80.0 70.0 <t< td=""><td>S.Y</td><td></td><td>S.Y</td><td>U</td><td>ບ</td><td>O </td><td>O</td><td>C</td><td>υ</td><td>D</td><td>ט</td><td>- U</td><td></td><td>S.Y</td><td><u>ت</u></td><td><u>ر</u></td><td></td><td>ر ا</td><td><u></u></td><td></td><td>ر ر</td><td>C</td><td>U U</td><td>O</td></t<>	S.Y		S.Y	U	ບ	O 	O	C	υ	D	ט	- U		S.Y	<u>ت</u>	<u>ر</u>		ر ا	<u></u>		ر ر	C	U U	O
18.5 16.0 18.0 25.0 26.0 27.0 25.0 26.0 26.0 26.0 26.0 26.0 25.0 12.0 10.0 11.0 9.0 10.0 9.0 9.0 7.0 7.3	86							84.4	104.4	0.96	94.8	106.2	40.4		34.8	43.6	52.0	48 0	53.6		50.0	54.4	44.4	32.0
18.5 16.0 18.0 2.00 14.0 17.0 16.0 16.0 16.0 18.0 17.0 18.0	25							26.0	24.0	28.0	25.0	25.0	12.0	10.0	11.0	9.0		10.0	0.6		8.0	7.0	11.0	13.0
0.0002 Nii 0.0002 0.0003 0.0004 0.0003 0.0004 0.0003 Nii 0.0004 0.0002 0	18							16.0	16.0	15.0	18.0	17.0	15.0	5.0	10 0	10 0	0 8	09	8.0		7.0	7.3	8.0	9.0
0.004 0.004 0.000								0.004		0.003).004				ij	Ë
0.005 0.001 0.005 0.00 0.005 0.001 0.005 0.005 0.005 0.005 0.005 0.005 0.001 0.005 0.001 0.005 0.001 0.005 0.001 0.005 0.001 0.005 0.001 0.005 0.001 0.005 0.001 0.005 0.001 0.005 0	:-								0.004														.002	ii.
Nii. Int. Pr. Tr. Tr. Tr. Pr. Int. Pr. Pr. Int. Pr. Pr. Int. Pr. Pr. Int. Pr. Pr. Nii Nii Pr. Pr. Nii Nii Pr. Pr. Pr. Tr. Pr. Int. Pr. Pr. Nii Nii Pr. Pr. Pr. Nii Nii Pr. Pr. Pr. Tr. Pr. Nii Nii Pr. Pr. Pr. Tr. Pr. Pr. Nii Nii Pr. Pr. Pr. Tr. Pr. Pr. Nii Nii Pr. Pr. Pr. Pr. Pr. Pr. Pr. Nii Nii Pr.	0.0							,	0 005	0.005														0.001
0.069 0.104 0.058 0.138 0.143 0.108 0.116 0.088 — 0.043 0.076 0.070 0.106 0.139 0.064 0.074 0.113 0.078 0.078 0.078 0.094 0.005 0.104 0.058 0.139 0.145 0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.1	ž. :					Pr	Int.	Pr	1	Pr	Pr	Int.	Pr	Pr						[[05:		<u></u>	Pr	Pr
- 1.5 - 3.5 - 5.0 - 1.5 -1.5 -1.5 -1.5 -2.0 -3.5 -3.1 -3.4 -1.5 -1.2 -2.5 -2.0 -1.8 -2.2 2.8 2.8 2.8 2.8 2.8 -1.5 -1.5 -2.5 -2.0 -1.8 -2.5 2.8																				ple not	0			0.043
29.2 31.5 30 5 28.9 29.5 30 1 29.1 29.6 30.5 29.4 18.4 15.0 17.2 16.5 17.5 17.6 16.9 18.7 17.0 14.5 0 050 0.04 0.05 0.05 0.01 0.02 0.04 0.05 0.05 0.01 0.01 0.01 0.04 0.05 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.02 0.01 0					ī	2		•	-3.4	-1.5	-1.2				-22	2 8		-1.2		ms2	-3.0	-2.0	-1.5	-2.5
0 0 0 5 0 0 0 4 0 0 0 5 0 0 0 8 0 0 8 0 0 5 0 0 0 5 0 0 0 5 0 0 0 4 0 0 0 5 0 0 0 0	:	_							29.6	30.5	29.4	18.4	15.0	17.2	16.5	17.5	17.6	16.9	18.7	,	17.0	14.5	15.5	17.0
0 0005 Nii 0.01 0.0005 0.0005 Nii 0.01 Tr. 0.01 Tr. 0.010 Tr. 0.0005 M. Tr. M., Tr. 0.01 0.015 0.003 0.002 0	0 0				1				0.05	0.04	0.05	0.04	0.02	0.02	0.02			0 03	0.02	^		0.03	0.02	0.01
7.8 7.2 7.0 7.4 7.1 7.4 6.8 7.1 7.2 7.6 7.6 7.4 7.1 6.9 7.0 6.9 7.0 6.9 7.4 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0	00 :							0.01	Tr.				D.005 M		, Tr.			0.03	0.02	, (0.02		0 005
0.6 0.8 0.6 0.8 0.8 0.8 0.8 0.8 0.8 0.6 <td>:</td> <td></td> <td>,</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>7.2</td> <td>. 7.6</td> <td>7.6</td> <td>7.4</td> <td>7.1</td> <td>6.9</td> <td>7.0</td> <td>6.9</td> <td>7.0</td> <td>6.9</td> <td>7.4</td> <td></td> <td>7.0</td> <td>7.0</td> <td>7.2</td> <td>7.0</td>	:		,						7.2	. 7.6	7.6	7.4	7.1	6.9	7.0	6.9	7.0	6.9	7.4		7.0	7.0	7.2	7.0
5 c.c. 1 c.c. 2 c.c. 2 c.c. 2 c.c. 2 c.c. 5 c.c. 5 c.c. 5 c.c. 5 c.c. 1 c.c. 5 c.c. 60 — 60 — 60 — 60 — 60 — 60 — 60 — 60	:								9.0	0.8	0.8	0.8	8.0	9.0	0.9	9.0	9.0	9.0	0.8		9.0	9.0	9.0	9.0
		.c. 1 c.c		-		<u> </u>				1 c.c.			09-	09	. 60			C.C. 1		-	60 -	09 -	60 c.c.	- 60 c.c.

Summarised Report on the Sterilisation of Water Mains during the year 1957.

		·						
	ion or in- he treated compared untreated reg:—	non	+150	+ 20	+ 33	-33	99+	+ 300
	uction the the as color of un	bionimudlA nəgoriiN	+17	-46	4	Z II	-79	Z.
	% of reduc crease in tage samples as with that of samples	Ammoniacal Nitrogen	ii.	Z. Z.	Nii	-100	-34	-50
• 10		Phosphate	0.001	0.002	0.001	0.001	0.001	0.001
John 17	ation	Iron	0.05	0.03	0.04	0.02	0.05	0.04
2112	Sterilisation	Oxygen Absorbed (YbiT)	0.142	0.111	0.126	0.142	0.114	0.144
Suring Ci	After	bionimudlA nagortiN	0.056	0.028	0.013	0.072	0.006	0.048
INTERING		Ammoniacal nagortiV	0.011	0.004	0.004	Zii	0.005	0.004
ח א מור		Phosphate	0.001	0.001	0.001	0.001	0.001	0.002
	Sterilisation	Iron	0.02	0.02	0.03	0.03	0.03	0.01
December		Oxygen Absorbed (Tidy)	0.141	0.142	0.147	0.149	0.142	0.166
OII IIIO	Before	bionimudIA negoriiN	0.048	0.052	0.022	0.072	0.028	0.048
TOTON	-	Ammoniacal negoriiN	0.011	0.004	0.004	0.004	0.003	0.008
	chlorine	Total Ibs of besu	136	106	129	109.5	09	08
Camination	əuil səd	Length of pi	3 fur- longs		<u>.</u> .	ω ,	<u>2</u>	° .
		Period	1-1-57 to 15-1-57 (10 days)	16.1-57 to 27-1-57 (9 days)	28-1-57 to 8-2-57 (10 days)	9-2-57 to 21-2-57 (10 days)	22-2-57 to 2 5-3-57 (8 days)	6-3-57 to 19-3-57 (10 days)
	,	Place	Venkatnarayana Road (opp. to Panagal Park).	2Sir C. P. Rama- swamy Iyer Road, Anna-	gh	4 Peters Road, near Y.M.C.A.	Shenoy Nagar (near Cemetry)	Nathamuni Naidu Street, Shenoy Nagar
	•0	N.S		2	, w	4	S	9

60

+ 50	+200	+ 200	:	:	+ 200	+100	÷	: .	-100
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						0		4	
21	m	Z.	20		+ 73	1,500	A 121 - 1	-14	Z
15	+	~	1		+	+ ,	0 -1 -1	_,	
				,	*-	0.4		<u> </u>	
27	33	43	43	.	+75	Nil to 0.004	(2)6-1	+ 120	Ë
I	1	1	1		+	Z	- ' - '	• •	
22	7	01	02		0.01	01		—	
0.002	0.001	0.001	0.002	= :	0.001	0.001		Nii	0.001

0.03	0.03	0.03	:	- :	0.03	0.04	0.0	:	· iż
4	₹	0			<u> </u>				
0.164	0.164	0.180	0.169	:	0.175	0.132		:	0.161
0.025	0.034	0.048	0.025	:	0.069	0.064		0.048	0.048
0			0	•	0			0.	
0.008	0.010	0.004	0.004	•	0.007	0.004	n.	0.022	0.004
0.0	0.0	0.0	0.0	:	0.0	0.0	aken	0.0	0.0
05	0	010	62		01	01		01	80
0.002	0.001	0.001	0.007	eq	0.001	0.0	not	0.001	0.008
	7			Collec ted		0.02 0.001	<u> </u>		
0.02	0.01	0.01	:	ollo	0.01	0.0	<u>e</u>	:	0.01
∞	m	4	m	0_	~	- 2	Sam ple		6
0.168	0.193).20	0.183).21	0.152	Sar		0.169
		0.048 0.204		not	0.040 0.213				
.032	0.033	.048	0.050	4)	940	0.004		0.056	0.048
0		0	O .	ple		0	•		
67 0.011 0.032	0.015	0.007	0.007	Sam ple	0.004	ä	1118	0.010	0.004
0.	0.0	0.	Ö	Ø	0	4		0.0	0.0
67	102	111	93	72	38	129	27	48	192
							*		
S						***	, v		, , , , , , , , , , , , , , , , , , , ,
to 2 fur- longs	\$	\$	5	33			, , , , , , ,	2	
2		0.5	<u>8</u>	0.02	s) to 2	000	0 0	7-8-57 to 2 9-9-57 (5 days)	3,70
t t	7 tc-57 ays	7 · t	ays 7 tc -57 ays	7 t		ays)	1ys) 7 t -57 ays	7 t 57 ays	57 to 10-57 days)
20-3-57 to 5-4-57 (12 days)	6-4-57 to 25-4-57 (11 days)	7-6-57	(16 days) 8-6-57 to 27-6-57 (11 days)	28-6-57 to 2 10-7-57	(6 days) 11-7-57 to 28-7-57	(7"days) 9-7-57 to 20-8-57	$ \begin{array}{c c} (12 \text{ days}) \\ 21-8-57 & \text{to} \\ 26-8-57 \\ (4 \text{ days}) \end{array} $	'-8-57 to 9-9-57 (5 days)	15-10-57 to days
20-5	· 62 -	(4		28-	(6	7) 29-	(12 21- 2 (27-	10-9
Talkies 20-3-57 (Shenoy 5-4-57 (12 day)	ghi ad, m-	ion	ad)	aeet	ion Rd	se Rd. Guru-	swamy Nagar) (12 days) lianthope 21-8-57 the Constant of the C	oad Iai-	(5th 10-9-57 to 2 15-10-57 (20 days)
her	Yo Ro era tillw	ighton Road (at the junction	of Gantz Road) uddy Field Road 6th Division.	yan Str	nct m oad pet	e J Gn	swamy Nagar) lianthope Road (near Police Station)	Rema	
	Ihi O P R	R. Ju	ntz Re Field 6th on.	ara	bpa ppa R	to	y r lop	ry's (1)	on)
kshmi Road Nagar)	dra nac p. t	the	of Gantz Iddy Fiel Road 61 Division.	angetty	the Kuj San	inth inth	am ad lice	Mary (Ann a puram)	R
Lakshmi Road Nagar	Samadhi Road, (opp. to Perambur Railway	9 Brighton (at the	10 Paddy Field Road 6th Division.	11 Suriyanarayana Chetty Stree	(at the junction of Kuppam Rd 12 Kuppam Road 1 (Tondiarpet)	13 Pulianthope Rd. 29-7-57 to 20-8-57	swamy N 14 Pulianthope Road Police Sta	15 St. Mary's Road 27-8-57 (Annamalai-9-9-57 puram) (5 day	16 T. H. Road Division)
7Le	<u>D</u>	9B1	OP?	1St	2 K	3 P1	4 Pı	5.51	T 9
	0.0	1	$\ddot{\leftarrow}$	_	-	—		-	Ť l

WATER ANALYSIS

nt
Ç
\mathcal{L}
7
95
-
7
ě
>
he
+-
0
-;-
=
Sterilisation of Water Mains during the year 1957—(Cont.)
S
<u>:</u>
<u>f</u> a
2
Ţ.
ıte
2
>
of
П
.0
ati
iss
=
er
St
th
on the
ىپ
OI
Q
2e
ed
1S
ar
n
n
n
S

STATISTICS SUPPLEMENT No. 50 (Cont.)

	ion or in- ne treated compared	untreated reg:	i norl	+ 50	, Sign	+166	+800	+.100	+250	+ 500	
4		e	Albuminoid negoritivity	Nil to	:	+14	Nii.	+ 20	+ 20	+,20	
	% of reduct crease in the samples as	with that of samples	Ammoniacal negotive	Nil to	5 .	Nil	Zii	Nil to 0.004	+ 100	Z	
(соше.)	,	State of the state	Phosphate	0.001	Why or go or pa	0.002	0.005	0.003	0.002	0.002	
1001	sation		Iron	0.03	6	0.16	0.00	0.02	0.07	0.06	
ma f am	After Sterilisation		Oxygen Absorbed (s'ybiT)	0.109	, the	0.120	0.139	0.069	0.112	0.114	
o Girring Ci	After		bionimudIA negoriiN	0.002	g (8	0.056	0.048	0.048	0.048	0.048	
			Ammoniacal negoniiN	0.002		0.004	Nii.	0.004	0.004	0.002	
	_		Phosphate	0.005	à	0.001	0.002	0.002	0.005	0.001	
	Sterilisation		Iron	90.0		0.06	0.01	0.01	0.02	0.01	+
			Oxygen Absorbed (s'ybiT)	0.138		0.144	0.145	0.106	0.290	0.130	
	Before	-	bionimudIA nəgoriiN	Z		0.048	0.048	0.040	0.040	0.040	
			IsosinommA nogoriiN	Z	1000	0.004	Nil	Z	0.005	0.002	
I		pəs	Total lbs. of Chlorine u	54		21	54	54	108	64	
-		seq be	Length of pi	1 fur- longs		, ,	,,	.,			
		٠	Period	16-10-57 to 27-10-57 (6 days)		28-	(3 days) (31-10-57 to 2) (14-11-57	(6 days) 15-11-57 to 2 21-11-57 (6 days)	22-1 12- (12	13-12-57 to 2 31-12-57 (7 days)	
			Place	Junction of Vengul Pillai Street and Veera-	mi	Veeraswan Street, E	19 Poonamalle High 31-1 Road (opp. to 14-	Statio ovum (Chint	Mannappa Mudali Street (5th Division.)	Manikanda Mudali Street (opp. to Corporation School	
J		.0]	N .S			18	15	70	21	52	-

Statement showing the number of cases of labour which came under the care and observation of Child Welfare Scheme in 1957.

_				Llow		noted			Coo	to	H	Re-
		NI		пом	condu	icieu			Cas	le	ma	arks
Serial No.	Centre		By Nurses of C.W.S	Taken to Hospital	Taken over after barber women conducted	Maternity Ward	Total	Hindus	Christians	Muslims	Twins	Still Births
3 4 5 6 7 8	Tondiarpet Palmyrah Kuppam Royapuram Sanjivirayanpet Washermenpet Vysarpadi Peddunaickenpet George Town Kothwal Bazaar	•••	189 213 371 339 653 283 366 296 315	86 7 4 56 82 83 13 43 77	27 6 12 12 32 29 11 1 6	1,168 1,132 1,228 629 679 674	1,470 226 387 1,539 1,995 1,024 390 1.019 1,072	1355 155 215 1476 1537 976 386 886 803	13 7 4 28 32 	49 58 165 59 430 16 4 100 207	13 4 2 12 13 7 1 7	31 6 4 30 75 22 8 20 25
11 12 13 14 15 16 17	Muthialpet Treveleyan Basin Mat. Home, Choolai Pulianthope North Perambur Sembiam Ayanavaram Kilpauk Nammalwarpet	•••	440 177 447 770 341 620 329 201 269	22 49 141 53 12 85 121 21 16	1 2 7 22 7 14 25 20 8	544 908 2,455 179 626 832 353	1,024 360 1,345	751 1123 2899 691 220 1205 1195 543 270	64 25 21 51 64 21	237 8 87 308 119 89 48 32 11	4 6 33 8 5 11 11 7 .2	19 24 89 35 9 34 50 14
20 21 22 23 24 25 26	Kosapet Purasawakkam Periamet Ashok Vihar Edapalayam Park Town Napier Park Egmore Chetpet		345 198 140 17 65 101 361 265 113	11 30 3 19 3 5 3 35 23	16 5 5 1 1 7 5 6	885 752 529	372 1,118 148 789 69 106 371 305 671	340 1043 105 680 69 104 324 193 603	30 4 66 1 3	22 45 39 43 1 44 100 19	8 7 1 4 1 3 2 3	8 18 4 16 1 6 5 7
29 30 31 32 33 34 35	Nungambakkam Kodambakkam Royapettah Triplicane Zam Bazaar Mirsahibpet Mylapore Teynampet Saidapet Mat. Home	•••	126 295 453 575 304 394 576 522 280	10 110 35 71 17 10 6 14 125	2 15 4 11 2 1 2 3	933 787 1,859	138 1,353 492 1,444 323 404 583 538 2,267	136 1281 404 882 192 185 463 511 2110	1	1 50 70 552 126 219 110 23 101	1 11 5 6 3 7 6 6 20	3 43 7 41 4 3 15 8 64
38 39 40	Thyagaraya Nagar Saidapet Sub-Centre Guindy Mandavalli Adayar	•••	342 107 66 329 89	11 5 3 5 23	2 4 5 3 4	226	355 116 74 337 342	351 111 71 325 328	1 1 8 8	4 4 2 4 6	5 1 1 2 3	8 1 1 6 8
	Total	•••	12,682	1,548	347	17,378	31,955	27501	842	3612	261	7 78

Statement showing the number of visits paid by the Staff of Child Welfare Scheme in 1957.

er.			TI WILLIAM	Vicita	naid her	
dmu				AISIES	paid by	
Serial Number.	Centre		Midwives	Health Visitors	Assistant Surgeons	Total
Sei			<u>.</u>	1		
1	Tondiarpet	•••	7,485	6,962	711	15,158
2 3 4 5	Palmyrah Kuppam Royapuram	•••	1,641 2,156	3,714 4,013	267 · 487	5,622
4	Sanjivirayanpet	•••	9,968	4,415	397	14,780
	Washermenpet	•••	16,801 4,948	6,571 4,120	429 323	23,801
6 7 8	Vyasarpadi Peddunaickenpet	•••	5,573	3,354	269	9,391 9,196
	George Town	•••	5,879	4,827	679	11,385
9	Kothwal Bazaar	•••	6,562	6,093	1,191	13,846
10	Muthialpet	•••	7,699	7,709	702	16,110
11	Treveleyan Basin Maternity Home, Choolai	•••	4,034 11,804	5,163 7,950	705 901	9,902 20,655
12 13	Pulianthope	•••	12,847	5,188	785	18,820
14 15	North Perambur Sembiam	•••	5,516 8,470	1,703	305 489	7,524 12,192
16	Ayanavaram	•••	6,870	5.520	698	13,088
17	Kilpauk Nammalwarpet	•••	4,416 4,090	4,667 1,712	** 469 317	9,552
	Nammarwarpet		/		1 1	6,119
19 20	Kosapet Purasawakkam	•••	6,046 4,682	1,644 5,583	416 470	8,106 10,73 5
21	Periamet		2,195	1,410	288	3,893
22	Ashok Vihar	•••	2,213 1,523	2,274	139	4,626
23 24	Edapalayam Park Town	• • •	1,950	1,950 2,071	194	3,804 4,215
25	Napier Park	•••	3,968	2,743	505	7,216
26 27	Egmore Chetpet	•••	2,721 4,256	1,959 2,231	348 266	5,058 6,753
79	•					TAKE
28 29	Nungambakkam Kodambakkam	•••	2,032 6,177	1,426 7,030	348 814	3,806 14,021
30	Royapettah	- 1	4,941	1,767	634	7,342
31 32	Triplicane Zam Bazaar	· · · · · · · · · · · · · · · · · · ·	10,013 2,702	5,063 2,262	806 446	15,882 5,410
33	Mirsahibpet	• • • •	4,746	1,577	562	6,885
34 35	Mylapore Teynampet	ego -	3,790 5,580	2,971 2,546	575 705	7,336 8,831
36	Saidapet Maternity Home	• • •	6,858	4,377	508	11,743
37	Thyagaraya Nagar	p. 1	4,836	2,633	470	
38 39	Saidapet Sub-Centre	• • •	2,944	2,246	378	5,568
39 40	Guindy Mandavalli	1,	1,035 2,773	1,592 2,241	218	2,845 5,537
41	Adayar	F 1	2,346	3,426	600	6,372
	Total		2,17,116	1,49,936	20,668	3,87,720
	*	2	- 1	W		

Showing death among cases which came under the treatment of C.W.S. Private Doctors, etc., during the year 1957.

					, ,	= 2+
Serial No.	Centre	under o	mong cases are of C.W nder treatm	.S. but	Deaths among cases brought under care and treatment of C.W.S.	Total
		Under	Under	In	hs igh tr	
		Private Doctors	Vaidians treatment	Hospital	on nd	1
		Doctors	treatment		D To	
1	TD - 1:					*~~ 1 ***}
	Tondiarpet	•••	•••	• • •	• • •	•••
2 3	Palmyrah Kuppam	•••	•••	1	•••	1
	Royapuram Sanjivirayanpet	•••	•••	1	•••	- 1
5	Washermenpet			3		3
6	Vyasarpadi			3 2		2
7	Peddunaickenpet	• • •	•••	•••	•••	•••
8	George Town Kothawal Bazaar	•••	•••	2	•••	2
9	Kothawal Bazaar		•••	1	•••	1
1.0						
10	Muthialpet	•••	1	1	•••	$\frac{1}{2}$
11	Treveleyan Basin	•••	1	1	. 1	2
12 13	Maty. Home, Choolai	•••	•••	1	•••	1
14	Pulianthope North Perambur	•••	•••	1	•••	1
	Sembiam	•••		3	•••	3
	Ayanavaram			3 2	•••	2
	Kilpauk	1	•••			50
	Nammalwarpet	•••		• • •		,
		1				
	Kosapet	•••		• • •	<i>t.</i> • • •	•••
	Purasawakkam	•••	•••	•••	•••	•••
	Periamet	•••	•••	•••	•••	8
22	Ashok Vihar	•••	•••	1	•••	1
	Edapalayam	•••	•••	• • •	•••	/ = •••
	Park Town		•••	•••	•••	•••
	Napier Park Egmore				•••	
	Chatnut	•••	•••	1	•••	1
21	Chetput		. •••	1	•••	1
28	Nungambakkam	•••				
29	Kodambakkam	• • •	•••	1		1
	Royapettah		•••	•••		· · · ·
31	Triplicane	•••		3.		3
	Zam Bazaar	•••		•••	•••-	
	Mirsahibpet	• • • •	•••	• • • •	•••	1 4
	Mylapore	•••	•••	1	•••	
	Teynampet	•••	•••	1	•••	i I,
36	Saidapet Maty. Home	-:	•••	4.	•••	•••
37	Thiagaraya Nagar		7. 3	14.00	î.	· purious
	Saidapet Sub-Centre			in the	• • •	h
_	Guindy			1		. 1
	Mandavalli	•••	· · · ·	• • • •		***
	Adayar	•••		•••		•••
7.7	=0	•	3			
311	Total	•••	1	28	1	30

CHILD WELFARE SCHEME

Showing the number of Pre-natal cases registered and followed up during 1957

		Not Confined	135	12		10	38 26	62	180		19	124
		Not	98	::	23	::	71 10	230	12		240	24
	Cases	Unskilled attendants	28	::	.: 500	1000	28	72	04		90	26
		Private SeruN	• •	::		::	12	09 ::	: :	::	::	:4
	Unbooked	Private Doctors		::	::	: :	8	100	: :	::	:	
	Un	IstiqsoH	135	::	20	2 ::	45	247	5 10	:, :	39	178
		C.W.S.	54	::	.:.	::	5 76	08 ::	18	::	23	28
1		IstoT	480	12	413	12	189	851	199	::	126	395
		Not Confined	56 52	93	284	62	99	385	123	150	30	80
		Not	59	22	209	20 103	49	39	60 105	23	30	122
		Unskilled attendants	57	103	3000	33	73	59	20	21	15	09
0	Cases	Private sostuV	::	::		17	17	::	156	14	73	7
	Booked	Private Doctors	7	3 –	::	2	10	8 8	::	::	40	:
		IstiqsoH	113	249	135	248	169	91	920	88	14 84	126
		C.W.S	1,047	536 780	1,487	656 581	796	602	685	1,246	743	717
		IstoT	1,332	987	2,124	1,030	1,192	843	1,838	1,528	827 601	1,106
0		Prenatal c	1,812	999	2,124	1,042	1,381	1,694	2,037	1,528	953	1,109
			: :	::			• •	Choolai	• •	: :		
	•0	Serial N Centre	1 Tondiarpet 2 Palmyrah Kuppam	3 Royapuram 4 Sanjivirayanpet	5 Washermenpet 6 Vyasarpadi	7 Peddunaickenpet 8 George Town	9 Kothwal Bazaar 10 Muthialpet	11 Treveleyan Basin 12 Maternity Home, C	15 Pulianthope 14 North Perambur	15 Sembiam 16 Ayanavaram	17 Kilpauk 18 Nammalwarpet	19 Kosapet 20 Purasawakkam
	J	N Serial N										

100 000

~	~ +	10.00	0.0	~ ~	•	~		7.0	6) +	
23	24 84	35	69		39		20		24	1,20
<u>w4</u>	164	47	150	128	10	88	18	18	900	,238
		5.	3	34	4		<u>0</u> ∞	92	<i>m</i>	1
:	: -	_		:	÷	•			: :	591
::	::	· : :	- <u>:</u> :	7	:	::	:	::	: :	94
:	.: 50	31	: -	70	: ;:		::	:		181
27	72	197	42	98		132	383	47	10	2,294
:	700	11 20	157	39		62	16	14		780
68	323	332	450	329	260	234	149	103	14 23 28	6,382
20	17	78	84	141	217	24	20	77	19 52 50	3,661
29	37	44	133	102		47	88	38	36	2,330
20	ω4	26	39	666	94	3.7	41	38	12	1,211
	::		:	: 2		3	-	· :	::	317
::		7		9	• •	-4	· :	20	2	204
44	23	380	120	169	302	342	417	162	32 243 79	7,864
255	215	423	396	911	1,444	311	517	572 450	79 295 238	25,040
360	263	958	755 524	1,400	1,728	732	1,087	839	148 630 402	41,020
364	287	1,290	1,205	1,729	1,728	966	1,236	942	162 653 430	47,402
	::	::	::	- : :	::	: :		: :	: : :	•
21 Periamet 22 Ashok Vihar	23 Edapalayam 24 Park Town	25 Napier Park 26 Egmore	27 Chetpet 28 Nungambakkam	29 Kodambakkam 30 Royapettah	31 Triplicane 32 Zam Bazaar	33 Mirsahibpet 34 Mylapore	35 Teynampet 36 Saidapet Maternity Home	37 Thiagaraya Nagar 38 Saidapet Sub-Centre	39 Guindy 40 Mandavalli 41 Adayar	Total
21 Pe 22 As	23 Ed 24 Pa	25 N. 26 Eg	27 CF 28 Nt	29 K.	31 Tr 32 Za	33 M 34 M	35 Te 36 Sa	37 TF 38 Sa	39 Gr 40 M 41 Ac	

				State	ment	showing	g deatl	hs am	ong	case	s brough	t to t	he	notic
			Cardio diseas	o vascuses of H	ular Ieart.	Respin disea	atory	Alir di	nent	00	Urinary Tract diseases	To	xae	emias
Serial Number	Centre		Vascular diseases of Heart	Heart failure	Anaemia	Pneumonia	Tuberculosis	Tuberculosis enteritis	Dysentry	Intestinal Obstruction	Renal failure	Pre-eclamptic Toxaem	Cholaemia	Cerebral
2 3 4 5 6 7 8 9	Tondiarpet Palmyrah Kupp Royapuram Sanjivirayan pet Washermenpet Vyasarpadi Peddunaickenpe George Town Kothwal Bazaar Muthialpet	t t		1 - - - 1 -								1		
12 13 14 15 16	Choolai. Pulianthope North Perambu Sembiam Ayanavaram	o m e,												1
18 19 20 21 22 23	Kilpauk Nammalwarpet Kosapet Purasawalkam Periamet Ashok Vihar Edapalayam Park Town	• • • • • • • • • • • • • • • • • • • •												
25 26 27 28 29 30 31	Napier Park Egmore Chetpet Nungambakkam Kodambakkam Royapettah Triplicane	a									_	1		
32 33 34 35 36	Zam Bazaar Mirsahibpet Mylapore Teynampet	ernity		- P2	in the second se						: : -:	:		
39 40	Guindy Mandavalli Adayar	entre.	-		1 - 5				1		· :			

Child Welfare Scheme during 1957 (vide Supplement No. 54)

Haemorrhage	Shock	Infectious diseases	S	m i
Haemorrhage Placenta Praevia Intra & Post Partum Haemorrhage Retained Placenta	Obstetric Shock Shock due to Internal Manipulation Post operative Shock Ruptured Uterus	Tetanus Typhoid Meningitis Small-pox Measles, etc Other Fever	Puerperal Sepsis Inter Partium Sepsis	Pulmonary embolism Puerperal Mania
				$\begin{array}{cccccccccccccccccccccccccccccccccccc$
2 - 2 2	- - 2 2	_ _ 1 4		30

Statement showing the total number of priority milk consumers from 1st January to 31st December 1957.

O Trunca	
Centre Expectant Mothers Nursing Mothers Infants Toddlers	Total
2 Palmyrah Kuppam — — 90 — 3 Royapuram — — 79 — 4 Sanjivirayanpet — — 73 — 5 Washermenpet — — 104 — 6 Vyasarpadi — 94 — 7 Peddunaickenpet — 98 —	100 90 79 73 104 94 98 113 95
12 Maternity Home, Choolai. — — 129 — 13 Pulianthope — — — — 14 North Perambur — — — — — 15 Sembiam — — 64 —	66 115 129 136 106 64 116 85 105
19 Kosapet — — 81 — 20 Purasawakkam — — 109 — 21 Periamet — — 88 — 22 Ashok Vihar — 55 — 23 Edapalayam — 80 — 24 Park Town — 87 — 25 Napier Park — 89 — 26 Egmore — 104 — 27 Chetpet — 87 — ,	81 109 88 55 80 87 89 104 87
28 Nungambakkam — 83 — 29 Kodambakkam — — 138 — 30 Royapettah — — 88 — 31 Triplicane — 94 — 32 Zam Bazaar — 46 — 33 Mirsahibpet — 96 — 34 Mylapore — 60 — 35 Teynampet — 75 — 36 Saidapet Maternity Home. — 104 —	83 138 88 94 46 96 60 75 104
39 Guindy	58 101
Total 3,641 1 3,	,642

Statement showing the Serological Examination of Blood of Antenatal cases during the year 1957

	·	11 1		1,045,0		
Serial No.	Centre	Total number of Blood Samples examined	Number of positive cases	Number of Positive cases that took full course of	Number of Positive cases that took partial treatment	Number of Positive cases that did not turn up for treatment inspite permission by the staff
13 14 15	Todiarpet Sanjivirayanpet Washermenpet Vyasarpadi George Town Kothawal Bazaar Treveleyan Basin Choolai Maternity Home Pulianthope Sembiam Ayanavaram Purasawakkam Triplicane Saidapet Maternity Home Adayar	72 1,157 17,65 181 1,092 171 790 2,232 1,041 258 1,229 496 293 1641 1,674 61	5 53 146 6 64 9 32 104 59 15 48 19 24 59	16 10 -6 -17 43 7 2 27 2 21 27 	$ \begin{array}{r} $	5 20 122 5 38 9 13 32 26 12 16 11 24 34
	Total	14,153	750	178	430	142

CHILD WELFARE SCHEME

Showing the number of labour cases that came under the care and observation of Child Welfare Scheme; Infant mortality rate and Maternal mortality rate of Child Welfare Scheme from the years 1940 to 1957.

Year	No. of labour cases that came under the care and observation	Infant Morta- lity rate (per 1000)	Maternal Mortality rate (per 1000)
1940	14,489	115·80	2·50
1941	14,984	103·40	2·60
1942	8,390	104·40	3·00
1943	11,227	113·50	2·40
1944	10,591	140·60	2·20
1945	14,002	141·90	1·57
1946	19,147	102·80	2·50
1947	18,412	81·70	1·95
1948	26,051	83·00	1·91
1949	28,129	70·41	2·31
1950	26,957	95·52	2·00
1951	29,931	123·16	1·90
1952	32,264	125·43	1·73
1953	27,219	114·23	1·76
1954	29,209	110·31	1·27
1955	32,285	105·75	1·39
1956	31,267	109·30	0·15
1957	31,955	108·25	0·94

CHILD WELFARE

Statement Showing Pre-natal cases registered an

		-	2	tatement Show	es registered and	
		Cardio Vascular diseases	Respiratory diseases	Alimentary T diseases	ract Diseases of Urinary Tract	Toxaemia of Pregnancy
Serial Number	Centre	Valvular and diseases of Heart (V.D.H.) Hypertension	Bronchitis Pneumonia Pulmonary Tuberculosis Asthma	Constipation Dyspepsia Diarrhoea	Dysentery Scanty Micturition & Retention of Urine Albuminuria Pyelitis	Pre-eclamptic Toxaemia Eclampsia Acute-yellow atrophy of the liver(Jaundice)
1 2 3 4 5 6 7 8 9	Tondiarpet Palmyrah Kuppam Rayapuram Sanjivirayanpet Washermenpet Vyasarpadi Peddunaickenpet George Town Kothwal Bazzar	1 1 1 1 8 10 2 2 4 1 9 1 5 4	46 2 10 27 2 33 2 56 2	5 8 7 16 5 11 14 48 9	4 59 10 10 18 17 2 2 1 7 16 2 9 7 6 9 6 9	13 1 4 8 13 31 2 2 24 49 2 9 9
111 122 133 144 153 160 173	Muthialpet Treveleyen Basin Maty. Home Choolai Pulianthope North Perambur Sembiam Ayanavaram Kilpauk Nammalwarpet	5 11 3 9 3 1	61 2 2 170 2 6 119 3 15 5 47 3	105 125 9 51 66 12 1 184 3 41 82 12 48 222 5	14 66 19 65 32 127 1 86 2	18 2 5 64 22 32 1 2
20 21 22 23 24 25 26 26	Kosapet Purasawakkam Periamet Ashok Vihar Edapalayam Park Town Napier Park Egmore Chetpet	2 1 2 1 3 2 1 3 6 5 1 5 1 1 1 1 1 1 1 1 1 1 1 1 1		35 38 12 26 50 2 43 27 5 2 116 13 320 35 15	19 16 11 5 62 6 1 10 3 9 24 6 7 2 4 59 2 25 1	18 1
29 30 31 31 32 33 33	Nungambakkam Kodambakkam Royapettah Triplicane Zam Bazzar Mirsahibpet Mylapore Teynampet Saidapet Maty. Home	2 13 2 13 6 2 7 5	2 3 1 22 76 2 37 2 2 48 1 1 4 27 2 30 1 3 29 6 3 38	5 23 9 6 2 205 13 4 120 136 27 51 18 7 157 9 3 104 7	13 93	5
39 40	T.Nagar Saidapet Sub. Centre Guindy Mandavalli Adayar Total	3 2	40 1 20 1 4			6

lments of pregnancy diagnosed and patients advised in 1957.

Debi Specific diseases Other diseases Specific diseases Other diseases Specific diseases Spe																		
Second S	Deficier diseas	icy es	Py	yrexia	1	lity	Spe	ecific	dise	ases		bnor	mali	ties o				
2 16 3 445 24 554 5 10 21 11 2 1 828 13 987 5 10 21 11 2 1 429 411 63 1260 16 126 61 32 4 56 21 2 348 61118 142 2124 11 142 21 111 444 12 21 111 444 12 21 11 444 11 44 12 11 13 34 12 11 13 34 13 13 13 13 14 14 14 11 103 14 14 14 14 14 14 14 14	deficiency Vitamin deficiency	Other Nutritio- nal deficiency	Influenza	Malaria	Kheumatism	•=		Nose	V.D. Syphilis Gonorrhoea	Leucorrhoea		,	age	reast abscess	Hydraminus	Normal		Total
3 154 224 4 4 4 10 277 7733 107 1838 7 87 124 127 4 7 203 5 800 110 10 8 1 113 20 1 48 14 1 85 3 526 98 1365 21 6 1 57 13 49 149 78 827 1 71 23 2 66 2 46 1 149 78 827 1 71 23 2 166 2 4 1 156 149 144 15 601 19 27 25 20 10 2 74 7 1106	2 14 5 10 16 126 30 125 10 136	21 61 61 7	 1 11 32 7 3 16	1. 2. 4		2 4 56 12 48	18 21 6 19 14	1	3	3 1 ··· 2 1 7 ···	1 2	39 58 429 348 157 219 144	•••	1 2	6 4	445 828 411 1118 445 460 631	24 13 63 142 128 23	554 987 1260 2124 1116 1030 1151
38 3 3 3 18 5 34 31 7, 6 179 166 704 18 7 27 6 31 1 1 128 33 360 50 2 4 10 5 1 11 32 1 250 93 636 19 1 2 3 2 2 2 61 156 263 1 13 58 156 263 1 13 58 151 4 293 28 38 2 1 45 5 3 169 151 50 958 2 34 6 14 2 5 155 2 197 44 650 19 8 1 50 2 3 3 8 292 153 755 28 15 4 6 14 2 5 155 2 160 24 524 28 15 4 6 61 3 67 8 45 159 160 24 524 29 144 59 105 6 57 2 4 309 2 1 409 136 1728 9 144 59 105 6 57 2 4 309 2 1 409 136 1728 9 20 1 3 16 5 2 135 225 50 641 11 41	145 3 236 3 154 7 87 116 110	10 6	12 23 24 22 7 8 1	4.	2 1 4 1 1 1	16 102 4 89 127 113 57	11 26 10 4 20 13	1	104 48	7 14	5	87 313 277 71 228 85 49	1	1 2	3 13	308 859 773 203 477 526 149	12 98 107 5 270 98 78	843 2384 1838 800 1528 1365 827
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	38 50 19 28 2 34	38	7 4 1	3. 2 1.	3 1	3 27 10 13 45 14	18 6 5 2	•••	1 2	11 2 5 3	34 3	31 31 32 61 58 169 155 8	7 1	6 1 1 2	•••	179 128 250 156 51 151 197 292	166 33 93 4 50 44 153	704 360 636 263 293 958 650 755
30 21 4 4 12 1 8 217 1 233 40 766 1 4 121 94 12 1 1 18 1 93 2 148 1 121 94 12 1 4 2 49 1 120 7 630 1 20 3 2 24 4 1 5 2 40 170 8 402 20 3722 546 515 56 30 1573 312 14 408 148 54 5877 20 26 35 14,699 2564 41,020	3 219 6 61 9 144 9 20 11 41 00 200 6 283	1 152	13 3 59 3 7 48		1	10 67 05 16 50 	2 8 6 5 4 6	•••	24 45 57 3	 2 2 33	4	137 159 309 135 63 131 86	2	 1 1	1 1	675 88 409 225 106 155 186	13 63 136 50 94 6 5	1400 872 1728 641 732 1105 1087
	30 1 4 06 121 20	21 94 3	12 2		•	4 1 24	12 3 4	··· i	5	8 2 	2	217 18 49 40	•••	1		233 93 120 170	40 2 7 8	766 148 630 402
TT 10		1	313	303	1	313	312	14	400	140	J4	38/1	20	20	33	17,099	2304	71,020

year 1957.

the

STATISTICS SUPPLEMENT No.

Total. 42 Other diseases. 16/ ∞ Diseases of Breasts. Psychosis. Aneamia. Puerperal Toxaemias. ∞ ⊢ . Utrine. 13 20 Pyrexia. Phlebitis, Thrombosis. S Puerperal Sepsis. **∞** − Urinary Complication. Laceration. 50 Perneal & Cervical Delayed 2nd Stage. 10 15 50 Tedious labour Proportion. -si**U** & noitisoqlsM ality Contracted Pelvis Anatomical Abnorm- ∞ Haemorrhage. $\infty \, \omega$ ∞ Post-Partam ∞ Retained Placenta. Placenta Praevia. Ectopic Gestation. Hydatiform mole. Abnormal Presentation Anaemia, Placenta Praevia. Accidental Haemorrhage. : Palmyrah Kuppam... Choolai Maternity Home, Peddunaickenpet Treveleyen Basin North Perambur Kothwal Bazaar Royapuram Sanjivirayanpet Washermenpet George Town 15 | Sembiam 16 | Ayanavaram Pulainthope Vyasarpadi Muthialpet Tondiarpet

110

115

206

155

514

						, ,							
75 153	186	146	40	71 37	137	242 98	425	73	49	314 51 31	26 155	83	7726
342	77	08	97	15	11	24 26	140	13	4	9	15	9	484
11	- 1-01	_ -	0,W	12	77	_ _	19	1-					153 14
11.								·				1	2
100	6	25	S	16	111	1 23	13_	12 28	1	111 6	22		940
11		11	5	1 1		-1-1-	1				_ _		54 6
1				-						11-		1	81
4 27	32		4.0	19	8 4	30	13	18		116	1 22	6	775
11	il	1-1							1			1	
10	1.0		7	11	2	38	37	16	29	3	20		352
7	24		1		4	-		12	- 1	6 9	25		320 3
100	~ £ 4		200	w	30	61	97	73	2	8	44	7	1021
13	10	7	7-	1	6 9	12	9	<u></u>	10	44	1	6	613 10
				1 }	7	7				\(\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	7	I	41 6
<u> </u>	5	11			- - -	11	i. 1		1			1-	26
75	_ 0 %_		4	7	6	13	78		<u> </u>	∞4	10	Ī	215
	7		.	l w	77			<u> </u>		4	10		57 2
\top					11				1				7
11		1 1							-		11	1	10
				11								1	
4.0	9	10	7	11	10	0.0		63		1 24	10	4	348
52 23	21 13	29	5 1	12	26	7	85	15	1	-	18	41	1069
	- 12					11	1		1		1	1	8 10
9	77		1	77		111	<u></u>	-		10		1	149
::	::		•	::	::	::	: :	• •			• •	:	
4	-				rm	u -				Home Thyagaraya Nagar Saidapet Sub-Centre.			-
Kilpauk Nammalwarpet	Kosapet Purasawakkam	ar	ım 1	rk	Chetpet Nungambakkam	Kodambakkam Royapettah	ar	et	ot Moto	Home Thyagaraya Na Saidapet Sub-C	Ui		÷ 1
uk na1w	oet awak	met v Vih	alaya Towi	r Pa	et	mba	icane Baza	hibp	ampe	me gara pet	dy iaval	ar	
Kilpauk Namma	Kosapet Purasaw	Periamet Ashok Vihar	Edapalayam Park Town	Napier Park Egmore	Chetpet Nungam	Kodambakk Royapettah	Triplicane Zam Bazaar	Mirsahibpet Mylapore	Teynampet Soid and A	Home Chyagar	Guindy Mandavalli	Adayar	
17 K 18 N	19 K 20 P	21 P	23 E P P	25 N 26 E	27 C 28 N	29 K	31 1	33 N 34 N	35 T		39 0	41	

CHILD WELFARE SCHEME

Statement showing Infants born in the year 1956 and kept under observation for a period of one year after birth.

nərbli		No. of li when one y	1,185	394	1,616	340	1,009	1,678	1,567	883
		No. of livin the city w	810 159	318	1,395	301	. 489	451	1,402	703
1	ni	out of Durs	232	:	19	::	: :	154	::	63
,	[[ə	w ad ot bis2	143	76 148	202 246	39	151	154	168	117
əsiv		Left the city not traceab	53	30	289	123	101	96	129	123
		Total number gainbuloxe	171	38	317	32	157	133 249	275	98
	10 to 12 months	Not	23	22	70	1 22	19	41 80	217	. 25
	10 to mont	Died	29	17	55	49	17	111	47	14
;	9 of ths	Not	× 7	5	0/8	23	29	17	3	21 23
	7 to 9 months	Died	23	27	62	15	33	22	58	16
i.i.	6 ths	Traceable	13	1	62	27	19	12	23	<u></u>
within	4 to 6 months	Died	33	27	77	3	34	22 51	64	31
Died	3 ths	Not	9 ::	15	30		111	∞ O	8	111
	2 to 3 months	Died	23	21	10	44	29	39	44	31
:	days to month	Not	::		16	ω4	1	21		9
3	8 day 1 mo	Died	3	10	30	7	25	18	34	13
	L 8	Not	<u> </u>	24	41 21	38	20	33	23	13
÷	1 to days	Deid	4.4	28	45	34	19	31 45	43	30
sulling	r of still b	Total numbe de la 1956	33	29	76	15	27	12	67	30
sinsi	9	dmun IstoT oel ni nrod	1,442	466	2,298	379	1,294	1,000	2,038	1,118
		`	::	::	::	::	::	ai	::	: : *
				18		*	•	Choola	es es es	11 Ø 12 23 c 12
	· entre		uppam	pet	jet	npet	zaar	3asin ome,	nbur	
	ర	1	pet h K		meni	aicke Tow	1 Baz pet	yan]		n aram
3	1.0		Tondiarpet Palmyrah K	Royapuram Sanjivirayan	Washermenp Vyasarpadi	Peddunaickenpet George Town	Kothwal Baz Muthialpet	Treveleyan I Maternity H	Pulianthope North Peran	15 Sembiam 16 Ayanavaram
4			1 Tor 2 Pah	3 Roy 4 San	5 Wa 6 Vya	7 Ped 8 Geo	9 Kot 10 Mu	1 Tre 2 Ma	13 Pul 14 No	S Sen
1, .**	· OVII	sinsZ	,		,	4		-	· i-ii	

415	337	121	85 118	305	539	892	967	454 470	450	351	276 390	24,742	
318	294	144	104	248	464	638	809	393	1,060	344	251 295	19,762 24	
7:	::	258	: :	: :	::	89 :	::	::	215	::	::0	050	
90	43	27	17	57	75	186	158	61	281	15	255	3,930	
33	20	12		6.0	84	118	108	38	22 275	10	30.	2,507	
49 25	50	30	17	38	62 10	108	117	67	58 204	36	27.	3,308 2	
27	38	25	: :	7 - 7	40	38 :	34	18	138	77	.79	932	
40	9	/ 4	· :	124	13	16	17	94	22	-:	::0	440	
9	42	3	::	3	16	30	31	4 κ	28	77	:-4	450	
<u>807</u>	9	∞ 0	90	20	Ξ:	110	20	00	242	w4	:44	581	-
	73	24	::	:-	14	24	154	16	33	с	9	403	1 17
111	7	13	73	7	124	22 10	38	11	111	94	13	682	
- :	40	22	: :	:	9:	12	6-	77	51	-	:::0	233	
200	9	w4.	——	6	15	111	18	16	114	40	:04	545	
::	24	.6	::	: :	::	24	٠ :	<u></u>	- 4	: :	:&	146	1.10
94	4 %	03	3	40	60	15	18	10	20	7	9	373	11.0
::	17	5	:-	. ∞	∞ :	6:	4 :	m :	47	7-1	::9	343	
12	10	9	400	40	8	28	16	12	15	13	:42	189	
12	25	10	77	ω4	9	33	20	16	12	3	:881	710	
509	410	223	99	349	694	1,151	1,211	575 571	544 2,114	408	315 493	31,267	٠
::	::	::	::	::	: :	• •	::	::	Home	::	:::		
7 Kilpauk 8 Nammalwarpet	19 Kosapet 20 Purasawakkam	Periamet 2 Ashok Vihar	3 Edapalayam 4 Park Town	5 Napier Park 6 Egmore	7 Chetpet 8 Nungambakkam	9 Kodambakkam 0 Royapettah	1 Triplicane 2 Zam Bazaar	33 Mirsahibpet 34 Mylapore	Teynampet Saidapet Maternity	7 Thiagaraya Nagar 8 Saidapet Sub-Centre	9 Guindy 0 Mandavalli 1 Adayar	Total	·
17	H—2	0 27 27 27 27 27 27 27 27 27 27 27 27 27	23	25 26	27 28	30	31	in m	35	37	39	K N	

					S	how	in	g cau	ıse	s c	of d	lea	ths	am	on	g]	Inf	an	ts bo	orn	in 1	956
		born	births	ths	N	leo-l dea				In	fec	tio	us c	lise	aso	es	F	eve	ers	Re	iseases espirat Syster	tor y
Serial No.	Centre.	Number of Infants in 1956	Number of live bir	Number of still-births in 1956	Pre-maturity	Asphyxia Neo-Nuturn	Birth injuries	Congenital Malformation and complications	Others	Cholera	Small-pox	Diphtheria	Enteric fever	Anterior Poliomyletis	Meningitis	Others	Malaria	Kalaazar	Others	Tuberculosis of lungs	Pneumonia	Others
	Tondiarpet Palmyrah Kup-	1,442 214	1,409 211	33				•••	•••	• •	•••	• • •				• •	• •	• • •	 4	•••	1	1
5 6	pam. Rayapuram Sanjivirayanpet Washermenpet Vyasarpadi Peddunaicken-	466 1,559 2,298 1,166 379	462 1,530 2,222 1,144 377	29 76 22	11 16 27 8 14	11 14	H	2	5	1	7 2					3			11 2 2 3 2		3 29 73 3 4	11
9 10 11	pet. George Town Kothwal Bazaar. Muthialpet Treveleyan Basin Maternity Home,	1,046 1,294 612 1,000 2,172	1,031 1,267 600 988 2,121	27 12 12	26 16 10 19 23	3	1 1	1 1	8	•••	2 5			. 1	1 1	5 ·· 1 3 6			1 2 2 11	•••	25 33 11 10 40	1
14 15 16 17 18	Choolai. Pulianthope North Perambur. Sembiam Ayanavaram Kilpauk Nammalwarpet	2,038 381 1,118 1,281 509 237 410	1,971 373 1,104 1,251 497 231 407	8 14 30 12 6	35 5 15 15 6 	1 1	5 2 1 1		916		2 1					2 1 1 1 • 4			30 9 4 5 12		45 2 7 14 5 2	
20 21 22 23 24 25	Kosapet Purasawakkam Periamet Ashok Vihar Edapalayam Park Town Napier Park	1,058 223 545 99 138 349	1,033 213 536 97 136 346	25 10 9 2 5 2 3	10 5 7 3 4		1		. 1		1					15 1 1			3 11 12 1	•••	2 3 2 1 2	
2 ² 25 25 30 3	Egmore Chetpet Nungambakkam Kodambakkam Royapettah Triplicane Zam Bazaar	312 694 114 1,151 487 1,211 101	308 685 113 1,118 479 1,191	9 3 3 3 8 20	5		1		1		2					3 3 1			8 1 6 		7 1 13 8 14 1	2
3: 3: 3: 3: 3:	Mirsahibpet Mylapore Teynampet Saidapet Home Thyagaraya- nagar.	575 571 544 2,114 408	559 555 532 2,035 397	9 16 5 16 2 12 5 79 7 11	16 9 54)	3	2 0	1 2 2 3 3 5 5 5 5 5 1 1	2 7 8 1	1					1		• •	12 6 	• • •	8 3 53 2	
3:	Saidapet Sub- Centre. Guindy Mandavali Adayar	315 493	307 482	8 11	5 15											1	• • •		3		1 21	
	Total	31,267	30,557	710	472	14:	5 8	3 17	7 79	2	26	-		- 1	2	53	-	;	213	-	461	54

nd kept under observations during 1st year of Life

nd	kep	t u	nder	obs	erva	t10	ns	dur	ıng	1s	t y	ear o	1 1	11ر	e 									
lim	ases c entar stem)1	Dise o Urin Syst	f ary	Dis ses liv	of		Dise Ne Sy		ous		Defic enc	y	1 /		eral ises			deaths	otherwise			children on year	of living len one year
ыаппса	Dysentery	Others	Nephritis	Others	Cirrhosis	Others	Congenital Syphylis	Convulsion	Tetanus	T.B. Meningitis	Rickets	Malnutrition	Others	Septicema and Pyaemia	Accidents, Injuries, etc.	Snake bite or Scorpion sting	an	Causes unknown	Total number of dea excluding still-births	Left the city or oth not traceable	Said to be well	Out of division	ber of living city v	Total number of liv Children when on
 10		• • •	•••	•••	•••		• • •	2	• • •			•		•••	• • •	•••	•••	•••	171 22	53 6	143 24	232	810 159	1,185 183
12 45 15 35 4	7 13 1	1	2 2 	• • •	2		•••	 12 4 1	•••			. 10 . 25 . 2		4		•••	1 	1 4	38 130 317 72 32	30 83 289 107 5	76 148 202 246 39	1 19	318 1,168 1,395 677 301	394 1,317 1,616 965 340
34 47 28 30 01	2 11 2 4 11	1 2 4	1		•	1	 1	1 5 7 17				18		4		• • •		4	111 157 67 133 244	123 101 5 96 194		150	521 858 489 451 1,282	797 1,009 528 759 1,678
60 13 27 50 13 10 19 33 5 18 4 7 10 7 22 5 34 13 29 2 18 12 15 34 15 15 16 16 17 18 18 18 18 18 18 18 18 18 18 18 18 18	6 2 3 1 2 3 4 5 1 6 2 5 1 1 1 2 1 1 2 1 1 1 2 1 1 1 1 1 1 1	1	3 2		•••	1	3	10 11 5 4 2 6 3 1 2 2 4 12 1 3 2 5 1				2 3 6 2 2 4 1 1 3		1			7 2 5 1	2 3 1 8 1 4 11 1 1 1 7	275 43 98 132 49 25 50 83 30 45 12 17 38 42 62 10 108 47 117 10 67 49 58 204 36	129 29 123 100 33 10 20 87 12 92 1 3 6 84 7 118 15 108 6 38 36 22 275 10	165 47 117 172 90 18 43 158 27 62 17 14 57 58 75 21 186 39 158 12 61 41 4 281 7	63 62 7 158 68 215	1,402 254 703 785 318 178 294 705 144 179 68 104 248 202 464 75 638 378 809 71 393 429 446 1,060 344	1,567 301 883 1,019 415 196 337 863 171 399 85 118 305 260 539 96 892 417 967 83 454 470 450 1,556 351
8			1	•••	••		1	•••	•••			1			•••	•••			•••	5	25 66	29	251 205	276
944		16	- 16	•••		7 5	12	132				6 152	2 7	27	1	· ½ .	22	01	3308				295 19,762	

Statement Showing the Total Number of Attendance of Expectant

		Statem	ent Sno	owing	the To	tai Nui	nber o	i Attei	naance	or Exp	ectan
No.				Atter	ndance	at Cli	nics			ew ince	Total Old Attendance
Serial 1	Centre	Jnfa	nts	Pre-So	chool	Expe	ctant hers		sing	Total New Attendance	Old Att
		New	Old	New	Old	New	Old	New	Old		Total
3	Tondiarpet Palmyrah Kuppam Rayapuram Sanjivirayanpet Washermenpet	2,155 599 683 2,245 2,939	7,258 1,023 1,054 5,188 11,199	679 75 70 809 303	1,498 29 19 605 216	554 987 1,260	531 644 1,866	680 790 2,258	860 978 5,238	2,530 6,572	2,443 2,695
8	Vyasarpadi Peddunaickenpet George Town Kothwal Bazaar Muthialpet	1,622	6,016 2,798 7,488 8,510 7,181	384 191 638 739 286	835 127 1,130 1,313 504	1,030 1,151 1,192	1,274 3,132 2,650	1,405 2,280 3,535	2,871 8,004 8,841	3,769 5,691 8,033	
	Treveleyan Basin Maternity Home,	3,177	7,146	1,202	1,688	843	2.286	2,611	6,730	7,833	17,850
13 14	Choolai Pulianthope North Perambur Sembiam	2.359 744 2.400	11,641 3,160 1,199 5,152	848 691 278 297	653 554 132 136	1,838 800	1,977 860	2,475	1,245	7,363 2,650	9,088
1' 13 19	Ayanavaram Kilpauk Nammalwarpet Kosapet Purasawalkam	989	7,492 3,972 1,988 1,440 5,653	403 118	799 411 477 43 420	743 601 1,106	1,126 870 1,092	1,656 917 1,098	3,546 1,954 1,149	4,377 2,754 3,311	5,289 3,724
2: 2: 2:	Periamet Ashok Vihar Bedapalayam Park Town Napier Park	1,877 519 538	861 3,612 882 1,385 1,359	293 422	233	636 263 293	1,231 469 721	2,701 655 607	4,450 905 1,419	7,037 1,730 1,860	10,999 2,489 4,108
2 2 2	Egmore Chetpet Nungambakkam Kodambakkam Royapettah	1,822 417 1,994	6,981 563 9,446	1,524 67 505	23 1,169	755 524 1,400	2,442 426 3,980	1,614 478 2,683	5,715 571 9,963	5,715 1,486 6,582	18,551 1,583 24,558
3 3	1 Triplicane 2 Zam Bazaar 3 Mirsahibpet 4 Mylapore 5 Teynampet	. 749 . 744 . 1,508	1,237 1,340 1,715	100 326	87 31 448	641 732 1,105	1,303 1,071 1,665	703 850 1,515	1,167 1,188 1,639	2,315 2,426 4,454	3,794 3,630 5,467
3 3 3 4	Saidapet Maternity Home Thyagaraya Nagar Saidapet Sub-Centre Guindy Mandavalli Adayar	. 1,261 . 646 . 263 1,334 . 1,266	491 1,651 1,250	126 227 276 335 1,079	74 177 347 480 421	839 766 148 630 402	1,058 1,103 208 1,461 739	1,497 773 337 1,291 1,546	1,557 555 1,434 1,989	3,723 2,412 1,024 3,590 4,293	4,425 1,601 5,026 4,399
_	Total	62,261	1,68,240	19,309	22,842	40,936	74,097	71,619	17,15,76	1,94,125	43,6,75

and Nursing Mothers and Children at the Out-patient Clinic in 1957.

					Diseas	ses Tro	eated (New)			
Grand Total	Respiratory	Alimetary	Skin Affection	Influenza	Ear and Eye Diseases	Anaemia	Vitamin deficiency	Malaria	Normal	Other Diseases	Total
27,314 4,351 5,225 19,469 35,780	957	500 206 228 687 822	106 63 61 111 421	138 56 82 365 667	31 19 21 29 358	904 76 129 560 886	398 33 58 21 679	1 1 16 7	3,841 1,050 1,494 3,383 2,318	864 174 265 443 1,681	7,357 1,908 2,530 6,572 8,634
21,315 10,839 29,445 25,347 22,747	464 511 857	656 345 602 1,223 1,139	102 70 48 91 152	92 125 335 1,148 518	38 27 5 43 44	343 387 145 887 666	209 178 307 246 288	6 21 54 118 —	1,438 1,743 3,019 3,147 608	1,576 424 698 337 760	5,121 3,769 5,691 8,033 5,484
25,683	2,210	1,315	163	343	162	412	159	9	1,914	1,155	7,833
42,643 16,451 6,086 19,822	1,646 388	1,207 378	459 416 118 163	2,114 979 137 626	333 428 9 —	1,170 633 151 260	288 137		1,072 910 791 3,606	541	2,650
27,264 13,432 8,043 7,035 17,532	977 446 318	644 359 526	528 571 121 92 215	696 575 186 98 469	391 240 10 39 76	198 226 141 226 248	162 165 124		479 628 850 1,433 1,063	473 455	2,754 3,311
3,978 18,036 4,219 5,968 7,419	908 347 407	933 217 345	116 284 63 100 92	56 1,127 71 128 124	24 111 32 31 14	108 153 156 138 310	131 112 87	3 11 —	344 1,965 507 402 845	1,210 225 219	7,037 1,730 1,860
6,429 24,266 3,069 31,140 8,088	584 154 340	1,015 149 1,873	24 233	107 247 68 468 214	221 2	233 223 151 267 318	135 79 191	16	191 852 758 2,605 1,061	1,596 99	5,715 1,486 6,582
31,335 6,109 6,056 9,921 8,294	627 6 261 886	468 452 689	110 59 390	439 86 157 509 256		441 192 178 201 500	75 116 883		3,200 150 873 404 1,271	605 328 484	2,315 2,426 4,454
36,976 6,984 6,837 2,625 8,616 8,692	580 7 160 5 163 6 705	399 243 144 5 558	248 77 55 310	287 110 151 478	56 7 43 1	527 281 73 73	512 110 60 669	1 18	364	304 212 210 432	3,723 2,412 1,024 3,590
6,30,880	26,812	20,015	8,070	15,830	3,286	14,157	10,122	321	57,403	28,113	1,94,125

Annual Return-Maternity and Child Welfare-from

			Annua	I Retu	rn—Ma	aternity	y and (Child W	elfare-	-from
			Bro	ought u	nder C	Care				Home
Number	Centre		s s					ical	F	Health
Serial N	Сепце	ate	of Mothers	Ante-Natal	Labour	Infants	Pre-School	Women Medical Officers	Ante-Natal	Post-Natal
2 3 4	Tondiarpet Palmyrah Kuppam Rayapuram Sanjivirayanpet Washermenpet		1,812 585 999 1,260 2,124	1,332 554 987 1,260 2,124	1,470 226 387 1,539 1,995	1,439 220 383 1,509 1,920	1,185 183 394 1,317 1,616	711 267 487 397 429	 19 12	66 188 282 22 27
7 8 9	Vyasarpadi Peddunaickenpet George Town Kothwal Bazaar Muthialpet		1,529 1,042 1,151 1,381 1,551	1,116 1,030 1,151 1,192 1,385	1,024 390 1,019 1,072 1,007	1,002 382 999 1,047 988	965 340 797 1,009 528	323 269 679 1,191 702	 10 22 55	528 103 9 61 141
12 13 14	Treveleyen Basin Maternity Home, Choolai Pulianthope North Perambur Sembiam		1,694 2,384 2,037 871 1,528	843 2,384 1,838 800 1,528	1,136 3,050 1,024 360 1,345		759 1,678 1,567 301 883		 20 262 77 2	
17 18 19	Ayanavaram Kilpauk Nammalwarpet Kosapot Purasawalkam		1,365 953 693 1,109 1,099	827 601 1,106	596 293 372	1,257 582 282 364 1,100	1,019 415 196 337 863	469 317 416	 42 57 	617 332 25 6 524
2: 2: 2:	Periamet Ashok Vihar Bedapalayam Park Town Napier Park		364 704 287 616 1,290	636 263 293	106	144 773 69 105 365	171 399 85 118 305	331 194	11 512 22 165 91	40 49
2′ 28 29	Egmore Chetpet Nungambakkam Kodambakkam Royapettah		1,068 1,205 623 1,729 1,137	755 524 1,400	671 138	664 135	260 539 96 892 417	266 348	9 26	86
3: 3: 3:	Triplicane Zam Bazaar Mirsahibpet Mylapore Teynampet	, , ,	1,728 901 966 1,128 1,236	641 732 1,105	323 404 583	319 401 568	967 83 454 470 450	446 562 575	3	65 19 73 60 516
3 3 4	Saidapet Maternity Home Thyagaroya Nagar Saidapet Sub-Centre Guindy Mandavally Adayar		2,204 942 862 162 656 430	839 766 148 630	355 116 74 337	347 115 73 331	351 111 276	470 378 218 523	 16	43 19
	Total	-0 1	47,402	41,020	31,955	31,177	24,742	20,668	1,448	12,995

1st January to 31st December, 1957

Visits						Clin	ics			Maternal	Mortality
Visitor	's	Midv	vives			Attend	ance			and Mo	rbidity
Infants	Toddlers	Ante-Natal	Post-Natal	Number Held	Ante-Natal	Number Held	Post-Natal	Number Held	Infants and Toddlers	Mortality	Morbidity
6,209 3,326 3,275 3,559 4,892	456 815	2,271 848 1,322 2,344 1,915		157 584 1,027 155 115	1,600 1,085 1,631 3,126 2,124	52 51 80 52 48	234 1,540 1,768 142 ,208	104 358 339 104 78	791 1,726 1,826 726 888	1	490 60 125 341 603
2,783 2,682 4,109 5,234 6,801	559 687	1,010 1,411 607 1,736 1,002	5,272 4,826	157	3,742 1,215 1,151 1,614 1,765	149 52 52 52 52 105	8,845 233 253 345 434	89 52 104 104 156	8,728 767 991 1,398 985	2 2 1 1	110 211 115 492 206
4,227 6,380 3,301 1,206 2,318	1,597 385	1,637 1,744	10,167 11,103 4,081	152	3,129 2,947 3,815 1,660 1,528	46 49 100 74 39	284 451 5,872 425 112	119 95 160 115 92	1,307 1,184 6,764 476 395	1 1	145 534 507 155 114
4,136 3,685 1,427 1,344 4,354	608 203 294	1,385 844 1,137 1,027 153	3,572 2,953 5,019	157 152 155	2,315 1,869 1,471 2,198 1,686	40 52 75 68 48	259 120 112 172 145	90 103 115 109 100	1,021 6,361 819 638 9,821	2 	514 75 153 186 353
993 1,095 1,764 1,718 2,172	115 124 139	415 232	1,423 1,621 1,108 1,718 3,575	101	771 636 358 293 958	29 93 52 46 47	49 197 58 80 173	93 72 52 46 47	502 440 336 327 613	 	146 40 16 71
1,768 1,888 1,158 1,302 1,247	297 173 3	1,625 583 849	2,631 1,449 5,328	105 148		47 52 52 49 52	121 231 84 351 286	47 103 52 101 52	622 618 290 1,563 697	1 1	37 137 42 242 98
3,614 1,979 1,175 2,524 1,460	264 329 384	1,222 1,089 704	1,480 3,957 3,086	104 105 104	1,728 1,944 1,018 1,105 1,087	52	467 128 217 148 292	52 52	1977 456 563 612 910	•••	425 31 73 170 49
3,044 1,623 1,713 1,485 1,961 3,033	513 420 64 261	4,080 576 295 536	756 2,368 740 2,237	101 104 52 104	839 1,869 356 630	52 52 52 52	412 295 130 23 136 70	52 52 52 52 52	939 1,052 562 267 593 785	 1	314 51 31 26 155 83
	21,529	45,315	171801	6,579	63,601	2,274	35,902	3,983	61,436	30	7,726

PART TIME:	Clinics	opened	at :-
------------	---------	--------	-------

1.	George Town	•••	on	1-8-1952
2.	Washermanpet	•••	,,	1-8-1952
3.	Choolai Maternity Home	•••	,,	1-8-1952
4.	Ashok Vihar			7-9-1953

FULL TIME: Clinics Inaugurated on 11-8-1955

,,	,	" Functioning from 1–9–193.	3	
at	1.	Vyasarpadi Child Welfare Centre	•••	6th Division
	2.	George Town " " "	•••	9th ,,
	3.	Choolai Maternity Home	•••	17th "
	4.	Chetpet Child Welfare Centre	•••	33rd "
	5.	Triplicane " " "	•••	38th ,,
	6.	Saidapet Maternity Home	•••	47th ,,

PART TIME: Clinics functioning from 1-9-1955

1.	Tondiarpet Child	Welfare	Centre		1st	Division
2.	Washermanpet	"	,	•••	5th	,,
3.	Treveleyen Basin	,,	,,	•••	16th	,,
4.	Ashok Vihar	,,	,,	•••	26th	22

CHILD WELFARE CENTRES

STATISTICS SUPPLEMENT No. 66

List of Child Welfare Centres where Serological examination of blood of Ante-natal cases are conducted.

	Examination of blood Conducted from
Choolai Maternity Home	27–9–1951
Saidapet	Dec. 1951
Sanjiviroyanpet C. W. Centre	May 1952
Triplicane	27–5–1952
* Pulianthope	1-5-1953
Washermanpet	7–5–1953
George Town	1-4-1954
Purasawalkam	1–4–1954
Treveleyen Basin	1-4-1954
** Sembiam	1-4-1954
Ayanavaram Maternity Home	22-10-1955
Tondiarpet C. W. Centre	1-10-1957
Kothwal Bazar	1-10-1957
Vyasarpadi	1-10-1957
Sembiam	1-10-1957
Kodambakam	1–10–1957
Adyar	1–10–1957
* C. W. Centre where Serological example Conducted upto	mination of blood was 30-9-1957
** C. W. Centre where Serological exar conducted upto	mination of blood was 21-9-1955

Child Welfare Centres and Creches

Date of opening	13-8-1947	3-11-1924	23-3-1948	26-5-1919	1-10-1954	14-7-1954	17-5-1922	24-9-1947	24-8-1924	19-7-1945	29-8-1947	15-9-1950	31-5-1914	9-9-1946	10-4-1954	28-6-1944	30-4-1954	31-8-1955	10-10-1919	7-3-1946	19-3-1956	10-6-1955	30-5-1940	16-5-1954
Beds	18	-	12	- 19	. 12	10	10	12	9 -	12	40	18		∞	12	9		1	11		16	-	30	
Phone No.	4615	2146	2319	3258	61205	4333	3697	4616	3121	3128	4617	3880	61604	90919	61788	61346	61092	61327	61455	4341	4759	25560	4522	85902
Dvn. No.	2	3	4	5	9	∞ .	6	10	11	16	17	18	19	20	21	22	23	24	25	26	26	27	28	29
Location	385, Thiruvotiyur High Road, Tondiarpet Near Corporation Model lines, Palmyrah	Kuppam 26, Suriyanarayana Chetty Street, Rayapuram	21/22, Kappal Polu Chetty, Street, Washermenpet	86. Thiruvotriyur High Road, Washermenpet	Bharathi Road, Perambur	18, Zinda Sahib Street, Peddunaikenpet	44, Amman Koil Street, George Town	1/27, Appu Maistry Street, George Town	175, Thambu Chetty Street, George Town	52, Trevleyan Basin Street, Sowcarpet	15, Vijayavigneswarar Koil Street, Choolai	1/33, Gantz Road, Pulainthope	54, Perambur High Road, Perambur	45, Paper Mills Road, Sembiam	United India Colony, Ayanvaram	19, Halls Road, Kilpauk	14, Subbaraya Chetty Street, Nammalwarpet	8, Chellappa Mudali Street, Kosapet	109, Purasawakkam High Road, Purasawakkam	4/8, Naval Hospital Road, Periamet	Ashok Vihar (Behind Moore Market)	Mallaya Market, Wall-Tax Road	2/8, Periera Street, Park Town	1/61, Arunachala Naicken St., Chintadripet
Serial Name of Name of No. Centre Division	New Washermenpet 2. Palmyrah Kuppam Rayapuram		Saniivirayanpet.	5. Washermenpet Korukupet		Peddunaickenpet		zaar		Basin.	Maternity Home	13. Pulianthope Pulianthope	14. North Perambur Perambur Barracks	Sembiam Sembiam	Avanavaram	Kilpauk	Nammalwarpet	Kosapet	Purasawakkam	Periamet	Ashok Vihar	Edapalayam	Park Town	Napier Park

Child Welfare Centres and Creches—(contd.)

A Comment of the comm

	74		,		2
Serial Name of No. Contre	Name of Division	Location No.	Phone No.	Beds	Date of opening
Egmore	Komaleeswaranpet	37, Langs Ganden Road, Pudupet 31	86519		7-7-1923
27, Chetpet	Thousand Lights	27, Jaganathapuram, 2nd Street, Chetpet 33	84599	. 9	24-9-1923
28. Thousand Lights	Thousand Lights	46, Aziz Mulk 3rd Street, Thousand Lights 33	1	1	3-3-1958
29. Nungambakkam	Nungambakkam	15, Noore Veerasamy Iyer St., Nungambakkam 34	86580	l	31-1-1956
30. Kodambakkam	Kodambakkam	68, Arcot Road, Kodambakkam	88469	12,-	5-1-1949
31. T. Nagar (North)	T. Nagar (North)	16, Ragaviah Road. T. Nagar 36		so _p da	19-7-1958
32. Rayapettah	Rayapettah	84, Lloyds Road, Royapetah 37	86644	1	9-10-1929
	Pudupakkam	8, Nyniappa Maistry Street, Triplicane 38	86505		1-8-1955
	Zam Bazzar	24/25, Surappa Mudali Street, Zam Bazaar 42	84706		14-9-1956
35. Mirsahibpet	Mirsahibpet	65, Dr. Besant Road, Triplicane 43	86947	1	25-10-1941
	Mylapore North	48, Bazaar Road, Mylapore 44	86570	**Pers	4-8-1924
37. Teynampet of the	Teynampet	104, Mount Road, (Corporation Dispensary)	88158	i.	10_3_1048
	T Nagar Courth	Didg.) 7 Teenis Road, Saidanet		ାଞ୍ଚ	28-11-1946
So. Saldapet Mary. Home	t. Magai Boutin		. *) t	
39. T. Nagar (South)	T. Nagar South	3, Sivagnanam Road, (Corporation Dispensary		9	See
	*)	BIdg) Life of the state of the		£.	10-3-1948
40. Saidapet and 63	Saidapet	24, Dhanapal Chetty Street, Saidapet 24, Dhanapal Chetty Street, Saidapet	1	÷ 1	30-3-1955
41.2. Guindy Francis	Guindy	6, Perumal Koil Street, Guindy, Kottur Village 49		i	17-4-1957
	li Adayar Adayar	34, Brodies Road, Adayar 50	71614	1	11-2-1946
43. Adayar en ber	. Adayar	chalap	71427	9	31-10-1947
	£	Domesting Welfore Centre	7146		416-1057
Creckey	Broadway	roadway		r.	14-11-1941
	Chetpet	Child Welfare Centre, Chetpet,	84599		29–12–1951

STATISTICS SUPPLEMENT No. 68 HOUSE VISITS MADE BY STAFF NURSES OF PUDUPAKKAM FAMILY PLANNING PILOT SCHEME, MADRAS.

October to December 1957 — Annual Statement

			07					
	Total Women	345	345.	390	292	409	336	2,117
	Total Houses revisited.	. 274	271	. 268	261	334	304	1,712
	Total revisits women contacted.	•	:	and the second s		;		in the state of th
	Total revisits Houses.	•	•			- :	to the second	
TOWNS IN	No. of Women contacted for follow up.	36	11.	59	6	17	. 81	150
	No. of houses visited for follow up of patients actually following up.	36	11	53	13	18	21	152
	No. of K. G. H. patients contacted for ollow up.	788	22		43	. 4	24	132
	Houses visited for Follow up of K. G. H. Patients.	38	32	14	19	. 3	33	183
	Women contacted for propa- ganda.	281	323	320	240	388	294	1,846
7	Houses visited for propaganda 1st visit.	200	228	201	187	311	250	1,377
200	Name of the Clinic.	Royapettah	Zam Bazaar	Triplicane	Mylapore	Mandavalli	Mirsahibpet	Total

STATISTICS SUPPLEMENT No. 69

OUT PATIENT STATEMENT—PUDUPAKKAM FAMILY PLANNING SCHEME

A Company of the Comp	the state of the s					g-16.		*			, ,		
	No. of patients		of patients actually adopted non-appliance methods in Family Planning.	ing	Total	No. of ping at	patients actually adoptappliance methods in Family Planning.	ctually nethods unning.	adopt- in	No. of puer-	No. of	No. of	Total attendan-
Name of the Clinics.	general on Family Planning.	Safe period method	Husband careful method	Husband Elementary careful precaution method 2	4	Diaph ragm.	Preceptin.		Total.	d	ctomy done.	t to	ce of new cases to clinic.
Royapettah	310	-	7		13	iz		9		_	•	•	331
Zam Bazaar	190]	•	2	÷	2	•	5	1	3	-	:	Marin Ing	. 199
Triplicane	411	19	2	38	59		4	∞	12	liz		•	482
Mylapore	164	7		1	n	•	2	-	8	_		:	171
Mandavalli	189		•	က	4	• 1		∞	. 6	3,440, d		4.0	202
Mirsahibpet	219	8	4	1	. ∞		1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		1	•	•	•	228
Total	1,483	26	15	51	92	.	10	24	35	6	.	in i	1,613





83.